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THINGS THAT MATTER

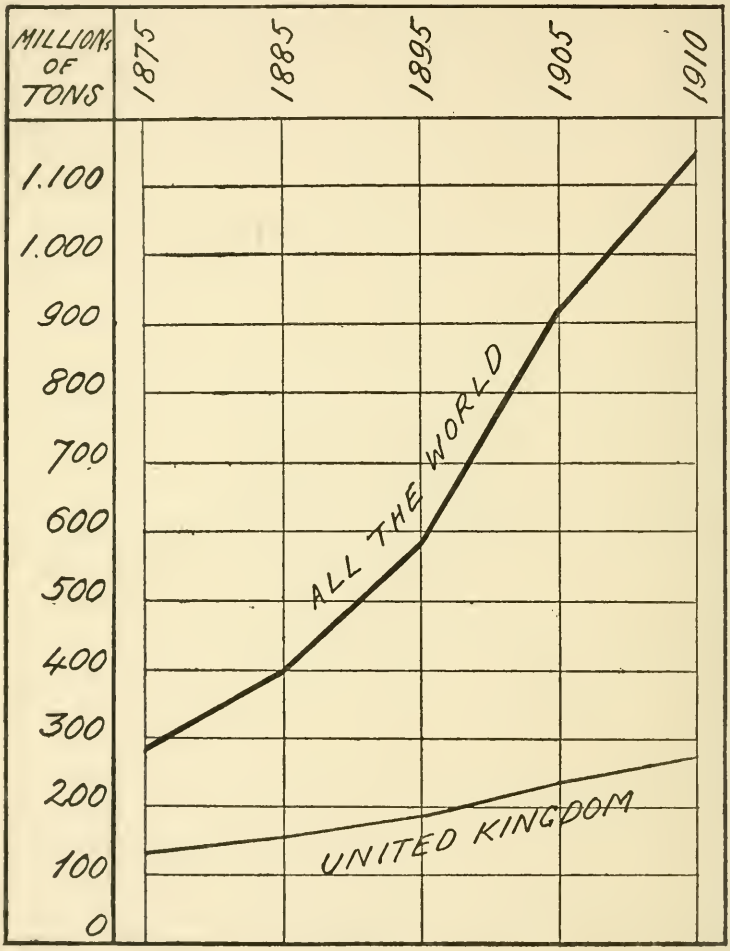
BY THE SAME AUTHOR

INSURANCE *versus* POVERTY
With an Introduction by the
Right Hon. D. LLOYD GEORGE

RICHES AND POVERTY
Tenth Revised Edition

MONEY'S FISCAL DICTIONARY
Second Edition

BRITISH PROGRESS & BRITISH RELATIVE DECLINE



The curves in this diagram exhibit the progress of Coal Output in (1) The United Kingdom, and (2) The World, since 1875. Coal Output is the dominating factor in competitive industry, and the diagram explains at once the main cause of British industrial progress and the main cause of British *relative* industrial decline (see "The Essence of the Matter").

THINGS THAT MATTER

PAPERS UPON SUBJECTS WHICH ARE, OR OUGHT TO BE, UNDER DISCUSSION

BY

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PREFACE

THE essays in this volume cover a very wide field, and it will be found they are not equally exhaustive of the subjects of which they treat. In regard to some things I have gone a great deal into detail; in regard to others, I have endeavoured to suggest rather than to expound.

There are vogues in thought as in dress, and unfortunately for the nation, it is not always that the really important things are mainly under discussion. It has been my endeavour in these pages to confine my attention to things that matter. It has often been an experiment with me, in my public writings and speeches, deliberately to turn from the topics of the moment to deal with things of essential and permanent importance, and I have been pleased again and again to find that what is sometimes called a "popular" audience has, at the beginning of the twentieth century, a much greater power of discrimination than it is commonly given credit for in many quarters. This emboldens me to

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hope that playing to the gallery may disappear from politics within a comparatively short period. Some of the following pages deal with matters that are topical; some with matters that, I think, I may claim to have helped to make topical; others with matters which are at present outside the pale of discussion. A glance at their titles may convey the impression that they are heterogeneous in character and purpose; the discerning reader will, I hope, not fail to find in them a certain definiteness of aim. They touch big issues, and will serve a purpose if they merely provoke thought.

I am indebted to the editors of the "Daily News," the "Westminster Gazette," the "Nation," and the "New Age," for permission to incorporate in these pages articles which I have contributed to their columns.

L. G. CHIOZZA MONEY

February 1st, 1912

CONTENTS

		PAGE
I.	The Recent Fall in Real Wages	1
II.	A Brief Statement of the Case for High Wages	37
III.	"Of Almost Religious Importance"	50
IV.	The Cradle and the Emigrant Ship	67
V.	The Emigration of Capital	91
VI.	Our Chief Industry	103
VII.	The Breaking of a Man	109
VIII.	One Shop for Bottles	123
IX.	Industry Writ Large	139
X.	States within the State	146
XI.	A World Iron Kingdom	152
XII.	British Iron Stagnation	161
XIII.	Sympathy—in Patches	176
XIV.	Beauty that pays	183
XV.	Votes for Men	189
XVI.	Trade and the Woman	195
XVII.	How Long an Island?	203
XVIII.	The Mockery of Education	209
XIX.	German Science and German Trade	227
XX.	"Those who live in Glass Houses"	233
XXI.	Of the Exportation of a Useful Man	239

PAGE

XXII. Why Prices have risen . . . 246

XXIII. The Rise in the Poverty Line . . 252

XXIV. "Giving Employment" . . . 258

XXV. "Kippers for Father, Twopence" . 266

XXVI. Housing Sane and Housing Insane . 274

XXVII. Æsthetic Acres 280

XXVIII. The Essence of the Matter . . 286

Index 295

THINGS THAT MATTER

THINGS THAT MATTER

I

THE RECENT FALL IN REAL WAGES

(1) *Wages in the last fifteen years*

I DO not think it is generally realized that during the last fifteen years—and fifteen years is no small part of an average lifetime—the wages of the British workman have fallen. The subject is one of exceeding interest and importance, for the progress of a nation must chiefly be measured by the standard of life of the wage-earning classes, which in this country form, with their dependants, about three-fourths of the entire population. The statement that the standard of life of three-fourths of the British people has fallen in half a generation is implicit in the statement which I have made.

Our investigation of wages in this country is unfortunately incomplete, but the Board of Trade in recent years have published a certain amount of information which is large enough to enable us to judge very fairly the movement of wages as a whole. The Fourteenth Abstract of Labour Statistics, published in May 1911, gives us a series of index

numbers exhibiting changes in rates of wages in the following groups of trades: building trades, coal-mining, engineering, textile trades, and agriculture. The unweighted mean of these five groups gives an index number which forms the first column of the following table, in which the year 1900 is taken as a standard of comparison, and the figures of other years expressed as percentages of that standard.

WAGES AND PRICES SINCE 1895

Year.	A. Wages Index Number.	B. Wholesale Prices.	C. London Retail Food Prices.
1895	89.1	91.0	93.2
1900	100.0	100.0	100.0
1905	97.0	97.6	103.7
1910	101.2	108.8	109.9
Movement in 15 years	Increase 12.4 per cent.	Increase 19.5 per cent.	Increase 17.9 per cent.

It will be seen that the money wages of the trades referred to increased by over 12 per cent. in the fifteen years reviewed. It is exceedingly doubtful, however, whether money wages as a whole made as great an increase. Certain it is that the wages of general labourers, railway servants, carmen, and many others were very nearly stationary, and that the earnings of the consider-

able army of casual workers remained at a dead level.

Now let us pass to the question of real or commodity wages as distinguished from money wages. The second column in the above table is an index number representative of the course of wholesale prices of forty-five principal articles of consumption. Here again the prices of 1900 are taken as the standard of comparison, while the prices of the other years are expressed as percentages of those of 1900. It will be seen that wholesale prices rose nearly 20 per cent. in the fifteen years. I am not here concerned as to this point with causation, but I may observe in passing that there is no justification for attributing more than a small proportion of the increase to the greater output of gold. The main cause is dealt with elsewhere in these pages.

But the working man does not buy at wholesale prices, and I have added a third column which gives the Board of Trade index number based on the London retail prices of twenty-three principal articles of food, duly weighted as to consumption. This column exhibits an increase of nearly 18 per cent. in the half generation. Prices in the provinces have moved similarly. By far the greater part of small incomes is expended on food; investigation has shown that families with an average weekly

income of about 21s. spend about 14s. 6d. of it on food. Of the balance, the part spent on fuel, oil, clothing, domestic necessaries, etc., has also suffered diminution of value through higher prices, while rents have not fallen.

Thus, comparing column 1 with column 3, we see that while money wages have increased about 12 per cent., retail prices have increased so much that real wages have fallen in the fifteen years.

Now let us pass to the question of profits.

In the following table the gross assessments to income tax from 1895 to 1910 are shown :—

THE PROFITS OF FIFTEEN YEARS

Fiscal Year.	Gross Assessments[1] to Income Tax.	Estimated Average Income of Income Tax Payers.	Estimated Number of Income Tax Payers.
	£	£	
1895-6	678,000,000	698	970,000
1896-7	705,000,000	719	980,000
1897-8	734,000,000	741	990,000
1898-9	763,000,000	763	1,000,000
1899-1900	792,000,000	784	1,010,000
1900-1	833,000,000	816	1,020,000
1901-2	867,000,000	841	1,030,000
1902-3	880,000,000	846	1,040,000
1903-4	903,000,000	860	1,050,000
1904-5	912,000,000	860	1,060,000
1905-6	925,000,000	864	1,070,000

[1] Net income is about one-tenth less than these gross assessments ; the point, of course, does not affect the rate of increase.

Fiscal Year.	Gross Assessments to Income Tax.	Estimated Average Income of Income Tax Payers.	Estimated Number of Income Tax Payers.
1906-7	944,000,000	874	1,080,000
1907-8	980,000,000	899	1,090,000
1908-9	1,010,000,000	918	1,100,000
1909-10	1,011,000,000	910	1,110,000
1910-11	1,050,000,000 [1]	937	1,120,000
Increase	£372,000,000	£239	
Increase per cent.	55	34	

These are remarkable figures. The first column gives the official gross assessments down to 1909-10, and I have added an estimate of my own down to date. We get an increase of no less than £372,000,000 in the fifteen years examined in the wages table. Two things have, however, to be noted.

The first is that as the number of income tax payers increased in the period it is well to allow for such increase. This I have done in the second column, which is based on the assumption that income tax payers increased from 970,000 to 1,120,000 in the fifteen years. That gives us an estimated average "wage" of the income tax payers in the period. It is seen to increase from

[1] Estimated.

£698 a year to £937 a year, an increase of £239 a year, or 34 per cent.

The second point in this connection is that it is credibly asserted that the income tax has been better collected of late. This is probably true, but the increase is so handsome that but a small proportion of it can be attributed to the smartness of tax collectors. If we assume that 9 per cent. is due to better collection, we are still left with an increase of 25 per cent. in the average income of the income tax payers.

We are now enabled to make a comparison of the movements of wages and profits respectively. In 1895-1910 the money wages rose by about 12 per cent., while the wages of the income tax classes, whom with their families I have termed the "upper five millions," rose about 25 per cent.

For both classes alike, as for the lower middle classes that lie between them, prices rose, but I need hardly dwell upon the fact that the great rise in the cost of living in the period means very much to the wage-earner and very little to the fortunate (or is it unfortunate?) payers of income tax.

Why is it that British workmen have not been able to secure a fairer share of the product of mental and manual labour? The number of possible factors of causation is great enough to

make one go warily in attempting to form a judgment. I suggest for consideration, however, that there are many signs that the strength of Trade Unionism relatively to that of the Employers' Federations has diminished of late, and that our Trade Unions exhibit a lack of expansion which is not creditable to the education, the wisdom, or the collective feeling of the working classes. I submit the following surprising figures :—

BRITISH AND GERMAN TRADE UNIONISTS

Year.	Britain.	Germany.
1899	1,850,000	864,000
1909	2,365,000	2,961,000 [1]
Increase	515,000	2,097,000
Increase per cent.	28	240

In view of these facts, I do not think we need be surprised to learn that German money wages have increased more rapidly than British money wages in the last ten years. German workmen appear to be flocking to the Trade Unions, and in 1909 the German Trade Unions gained 540,000 members,

[1] Even this figure is incomplete, but it is given because it properly compares with the German figure of 1899. The actual number of all German Trade Unionists is now about 3,750,000.

or 25,000 more than our British Trade Unions gained in ten years. Is it that a superior education is telling in this direction, as in others?

And I cannot but contrast the spirit which seems to animate German Trade Unionists with that of our own tradesmen in recent years. It was illustrated at the end of 1910. Arising out of not unexpected local disputes, which were breaches of an agreement between shipbuilders and shipworkers of a character which makes one wonder how Trade Unionists could put their hands to it, British shipbuilders locked out their men in the Northern yards. Upon their doing so, the men's leaders consented to conclude peace on the understanding that the masters should punish their men through their Union, if they struck work, by fine, or even by deprivation of employment in any shipyard for six or twelve months. The men, wiser than their leaders, refused to consent to such terms, and finally obtained better ones. Curiously, while British shipbuilders were locking out their men, German shipyard workers *struck* for higher wages and shorter hours, and, with the assistance of the powerful German Metalworkers' Society, the strongest Trade Union in the world, they won the day. One could not but be impressed by the coincidence; here, a shipyard lock-out and the men barely saved from a disaster to Trade Unionism;

in Germany, a shipyard strike won in a few weeks. Since 1910 we have had some evidences of "unrest" in the British labour world. Those who deplore that unrest will do well to ponder the facts we have reviewed.

It is also suggestive in this connection that the period we have examined has witnessed a very wide extension of the work of Conciliation Boards in settling differences upon the conditions of labour. The Board of Trade estimates that some 2,000,000 workers are now ruled by Conciliation Boards, and we are told officially that the Conciliation Boards have been so successful in preventing stoppages of work, "that of the 7508 cases settled by Conciliation Boards in the ten years, 1900-1909, only 104 (or about 1 per cent.) were preceded by a stoppage of work." We must, therefore, concede success to Conciliation Boards as being eminently conciliatory. The facts we have examined show most clearly, however, that they have not succeeded in raising the standard of life of the workmen concerned. Worse still, they have even failed to prevent a fall in the standard of life. It is, of course, arguable that but for the existence of Conciliation Boards the standard of life might have fallen still further, and it is so difficult in this connection to relate cause to effect that a very wide field obtains in which prejudice may colour judgment.

(2) *A Precise Record of Railway Servants' Earnings*

In the statistics adduced above, rates of wages, as distinguished from actual earnings, are treated. There is one great industry in connection with which it is fortunately possible to trace with accuracy the trend of actual earnings. The Board of Trade obtain from the principal railway companies

UNITED KINGDOM RAILWAY SERVANTS: ACTUAL EARNINGS OF SERVANTS OF TWENTY-SEVEN RAILWAY COMPANIES

Period.	No. employed in the Week.	Wages paid in the Week.	Average Weekly Earnings per Head.	
First week in December.		£	s.	d.
1896	380,114	456,380	24	0¼
1897	398,108	485,470	24	4¾
1898	412,304	507,912	24	7¾
1899	431,858	545,270	25	3
1900	440,347	551,942	25	0¾
1901	440,557	551,114	25	0¼
1902	448,429	559,179	24	11¼
1903	448,321	557,819	24	10½
1904	445,577	557,820	25	0½
1905	449,251	568,338	25	3½
1906	457,942	582,207	25	5¼
1907	478,690	618,304	25	10
1908	459,120	574,059	25	0
1909	459,444	582,782	25	4½
1910	463,019	596,342	25	9

information as to the total number of men (exclusive of clerks, salaried officers, and casuals) employed in their coaching, goods, locomotive, and engineers' departments, and also the aggregate money wages paid to these workpeople for one week of the year—the first in December. The particulars are obtained from twenty-seven railway companies, and as these employ nine-tenths of the total number of United Kingdom railway servants, the figures obtained are of great value. They are as given on page 10 for the years 1896-1910.

These figures, even when allowance is made for the fact that they do not include the cash value of uniforms provided by the companies, can hardly be regarded with satisfaction. They relate to one of our most dangerous industries, in which about 500 men are killed outright every year, and many thousands more or less seriously injured or maimed. They cover, in the words of the Board of Trade :

(*a*) Real changes in the scales of pay.

(*b*) Ordinary advances under existing scales, and

(*c*) Overtime or short time.

This being so, we have conclusive proof that the rates of pay of the various classes of railway servants has been very nearly stationary for a number of years. Obviously, if any considerable proportion of rates of pay had been advanced, then the average could only have been kept down

by the increased employment of cheap labour in other branches. Again, both good and bad years are included in the list, and the effect of overtime in such good years as 1899, 1900, 1907, and 1910 has, it will be found, very little effect upon the average earnings.

I need say little as to the excuse, often put forward by apologists for the Railway Companies, that "tips" are not included in the above figures. As a matter of fact, tips are only received by (1) porters and (2) a limited number of passenger guards, so that if the public's donations could be added to the above figures, very little change would result. Apart from that, the tipping system is an evil one, which ought to be abolished in the interests of the public. Its existence compels porters to pay more attention to first-class passengers than to third-class passengers, in order to make up their miserable wages.

Examination of this record of railway servants' earnings show that they have not moved as much as the rates of wages for certain groups of trades expressed by an index number in column A of the table on p. 2.

To make this clearer, I contrast in the next Table the rates of wages index number with an index number calculated from the railway actual earnings.

THE GENERAL RATES OF WAGES INDEX NUMBER CONTRASTED WITH RAILWAY ACTUAL EARNINGS

Year.	A. Rates of Wages Index No. 1900 = 100.	B. Railway Actual Cash Earnings Index No. 1900 = 100.
1896	90	96
1897	91	97
1898	93	98
1899	95	101
1900	100	100
1901	99	100
1902	98	100
1903	97	99
1904	97	100
1905	97	101
1906	98	101
1907	102	103
1908	101	100
1909	100	101
1910	100	103
Increase 1896-1910	11.1 per cent.	7·3 per cent.
Increase 1900-1910	Nil.	3 per cent.

Whereas the general rates of wages index number rose by 11.1 per cent. in 1896-1910, the railway actual earnings index number rose by 7.3 per cent.

The question at once arises, How could the Railway Companies secure labour if their rates of pay rose more slowly than those paid in other employments? The companies always claim that their conditions are better than the average and not worse. It is true that railway work is more regular and permanent than other employment, and that this may weigh with the worker, but the fact remains that railway pay must approximately follow the general trend.

The general effect of our examination of railway earnings, therefore, is to indicate that the Board of Trade General Wages Index Number probably exaggerates the general rise in wages. It is greatly to be feared that the industries in which the Board of Trade is able most easily to collect information are not representative of labour as a whole, and that the workers outside them have not fared so well as those within them.

One thing is conclusively demonstrated. We see that whether tested by rates of wages for five great groups of trades, or by actual earnings in the case of railway workers, money wages have risen little in the last fifteen years, and they have been stationary in the last ten years, while prices have been rising rapidly. Let us set out the facts:

WAGES AND PRICES SINCE 1896

Year.	Rates of Wages in Certain Trades. 1900 = 100.	Railway Earnings. 1900 = 100.	Food Prices. 1900 = 100.
1896	90	96	92
1900	100	100	100
1910	100	103	110
Increase 1896-1910	11.1 per cent.	7·3 per cent.	19·5 per cent.
Increase 1900-1910	Nil.	3 per cent.	10 per cent.

In connection with the railway service we are able to illustrate in the concrete the working of the conciliation schemes which have in recent years ruled so large a part of our industrial operations.

In the year 1907 the not unnatural dissatisfaction of railway servants with the earnings above described led to an agitation of considerable dimensions amongst them for better conditions. There were mass meetings all over the country, culminating in a great and orderly demonstration at the Albert Hall, which will long remain in the memory of those who witnessed it. A general strike threatened, and at the eleventh hour Mr Lloyd George, then President of the Board of Trade, averted the conflict by obtaining the con-

sent of the parties to a scheme for conciliation and arbitration. The treaty of peace was signed on 6th November 1907.

In August, 1910, the Board of Trade issued a Bluebook (Cd. 5332) described as a "Statement of Settlements regarding Questions as to Rates of Wages and Hours of Labour of Railway Employees that have been effected under the scheme for Conciliation and Arbitration arranged in accordance with the Agreement of the 6th November 1907, and of Settlements on certain Railways outside the Scheme." This statement is invaluable as showing what workmen obtain through the machinery of conciliation, after having suffered a large fall in real wages during a period of half a generation. We have to picture the condition of mind of a railway servant whose condition has worsened while he has aged from, say forty to fifty-five years, or from, say, thirty to forty-five years, and whose deferred hopes of better conditions have been referred to a Conciliation Board.

Perusal of the minute details of the Bluebook shows that the increases obtained upon the poor rates of pay indicated in the above averages are very small. Here and there one finds an increase of a penny a day, sometimes of twopence a day, rarely of more than twopence a day.

Take, for example, the London, Tilbury and Southend Railway settlement, made in 1909, and to remain in force until July, 1914. We find that shunters' maximum rates are raised a shilling per week, save the head shunters at Plaistow and at Ilford, whose maximum is raised by two shillings. The wages of under guards are to reach their maximum at twenty-five shillings in the fifth year, instead of at twenty-four shillings in the fourth year. Goods shunters are raised a shilling, save the head shunter at Commercial Road, who, receiving already a princely twenty-nine and sixpence, is fobbed off with an increase of sixpence a week.

Turning to the Lancashire and Yorkshire Conciliation Board settlement, made in 1909 and to remain in force until the end of 1914, we find such entries as this under "Grade Group No. 5," which covers goods checkers, goods porters, etc. :— "Each man in receipt of 17s., 18s., 19s., 20s., 21s., 22s., or 23s. per week to be given an advance of one shilling per week, and each man in receipt of 24s. per week an advance of sixpence per week." As to this line we are also given some illuminating figures upon the pay of shunters, which is fixed to range from 20s. per week to a maximum of 26s. for extra first-class shunters in their fifth year. Guards are to have what is described as an "improved scale of pay" ranging from 22s. up to

30s. "after the eleventh year." Thirty shillings is the high top-gallant of this "improved" scale.

The Great Western Railway case went to arbitration, and the travelling public, in view of recent deplorable occurrences, should be interested to learn what sort of wages are earned by first-class signalmen in principal cabins, who have such tremendous powers of life and death. We are told that *so long as the turn of duty in such cabins exceeds eight hours of continuous duty*, "signalmen in principal main line 'special' cabins, with three years' satisfactory service in such cabins at wages of 30s. per week, shall be entitled to receive wages of not less than 31s. per week." Signalmen in secondary "special" cabins receiving 29s. are to rise to 30s. Signalmen in principal main line first-class cabins at 27s. are to rise to 28s. It is the usual twopence a day. I do not know which is the more significant, the twopenny rise, or the revelation that a principal main line first-class signalman is considered to be worth 28s., and a "special" ditto 31s. We read without surprise further down the page that "platelayers with four years' service and upwards, whose wages exceed 17s 6d. but do not exceed 18s. per week," are to have "a shilling per week of increased wages." Again the bountiful twopence a day.

One wonders whether the arbitrators in these

cases have ever studied Mr Rowntree's primary poverty line, which was calculated on the basis of the least expenditure in the best market to secure the means of bare physical efficiency for a family of five persons. Mr Rowntree, barring from such expenditure butchers' meat and butter, liquor and tobacco, newspapers and postage stamps, club subscriptions and amusements, arrived at the following items:—Food, 12s. 9d.; rent and rates, 4s.; clothing, 2s. 3d.; fuel, 1s. 10d.; lighting, etc., 10d.; total, 21s. 8d. (Actual investigation shows that in practice more than 12s. 9d. of a 21s. income is spent on food.) But Mr Rowntree's calculation was made in 1899, and since then the cost of living has risen so much that in 1912 about 24s. would be needed to command the commodities which 21s. 8d. bought in 1899. It is a calculation which may be cordially commended to the notice of those arbitrators who undertake to settle the conditions of life of working men for a period of five years.

It should not be imagined that all signalmen get 28s. a week. Far from it. Such pay is only attained by men in important stations. In less important cabins there are longer hours of work, and the pay may be anything from 20s. to 25s. a week.

It is needless to multiply detail; the bluebook is full of such particulars as I have given. Gener-

ally, it is shown that, for a period of four or even five years, increments which can only be described as trifling have been made in the pay of certain grades of men in the railway service, and it is only too apparent that when in due course the Board of Trade publish particulars of actual earnings in continuation of the table on page 22, there will be shown an increase so small as to make little impression upon the actual fall in commodity wages which we have examined.

And what is happening in this same period of four or five years, for which the British railway servants have bound themselves by agreement to be satisfied with a rise of a penny or twopence a day for some of their number? It was well known to the representatives of the railway companies, who fought the shareholders' hand at these "conciliations," that working agreements between the railway companies were being made, or were already made, which would add greatly to railway companies' profits. As "The Times" said on February 9, 1911, in a special article on Railway Dividends: "To the professional element in the Stock Exchange and the official railway world the recovery in dividends has come as no surprise." Here is the record of the rise in dividends in 1910 of some of the prominent lines:

BRITISH RAILWAY DIVIDENDS,
1909 AND 1910

Company.	1909. Per cent.	1910. Per cent.
Great Western . .	5¼	5¾
Great Northern . .	3⅞	4⅛
Lancashire and Yorkshire	3⅞	4⅜
Midland	5⅛	6
North London . .	4	5
North-Western . .	5⅞	6⅝
Brighton . . .	5	5⅜
South-Eastern . .	2¾	3½
South-Western . .	5¾	6⅛

Well may the "Railway News" term such figures "a fine record." The pennies and twopences a day obtained by a proportion of railway men, paid by the railway companies only after Government intervention, and denied at the risk of precipitating a disastrous strike, have been paid out of a fraction of increased profits. The lion's share of the increased profits went, as is usual, to the sleeping partners. While the profits were rising merrily, the railway servants were binding themselves by the agreements referred to not even to ask for another penny or twopence a day until after 1913 or 1914. Nor should it be forgotten that the increased profits have in

some measure accrued from the discharge of employees under working agreements.

Such was the underlying cause of the railway trouble of 1911 — a trouble which led to the appointment of a Royal Commission to investigate the working of the conciliation scheme, in connection with which it is regrettably understood that the Government have given assurances to the Railway Companies that they will be allowed to increase their railway charges if in future they raise wages. British railway rates are already exorbitant, and rob the country of millions of pounds' worth of trade every year. They are the equivalent of *octroi*

RECENT INCREASE IN BRITISH RAILWAY NET PROFITS

(As returned by the Companies to the Board of Trade.)

	£
1900 . . .	40,058,000
1901 . . .	39,096,000
1902 . . .	41,628,000
1903 . . .	42,327,000
1904 . . .	42,661,000
1905 . . .	43,466,000
1906 . . .	44,446,000
1907 . . .	44,940,000
1908 . . .	43,486,000
1909 . . .	45,136,000
1910 . . .	47,356,000

duties, or a system of internal protection. It is astonishing, if it is true, that the Government should have given such an undertaking. The facts as to railway net profits since 1900 are given on the previous page. In the last two years of this table, British railways made a net increased profit of nearly £4,000,000, which was sufficient to give a rise of 2s. 6d. a week to every railway servant. Why, then, should British trade be further injured by making traders pay what the Companies ought to find out of their gigantic profits?

(3) *Other Evidence as to Actual Earnings:* 1886-1906

In 1886, and again in 1906, the Board of Trade made an attempt to investigate actual earnings by asking employers voluntarily to fill up forms stating the amounts paid to their workpeople. The officials met with varying success, and so far returns have been published relating to six groups of trades: Textiles, Clothing, Building, Public Utility Services, Agriculture, and Metal, Engineering, and Shipbuilding. In some trades, as in engineering and textiles, 40 to 50 per

cent. of the workers were reported on. In the clothing trades only one worker in three was reported on; in building only one workman in ten. The explanation is that for the most part only the big and reputable firms, who pay the best wages, made reports.

For one group alone is the return practically complete. It is that relating to "Public Utility Services." Most of these are in the hands of public authorities, who almost invariably pay the highest wages current in their areas. The Public Utility group, therefore, affords us the best test of the six groups.

Now let us see how, judging by the limited returns received, earnings moved during 1886-1906. The table on page 25 summarizes the information published in the six big yellow-books on the subject which the Board of Trade have published in 1909-1911.

It is most unfortunate that these two important inquiries were made, the first in 1886, a year of great depression, and the second in 1906, a year of good trade, and allowance has to be made for this in considering the figures. It will be seen that in the textile, public utility, and metal and engineering groups, we have a comparison of 1886 and 1906. As to groups 2 and 3, clothing and building, comparison is not possible because the

RISE IN ACTUAL EARNINGS: 1886-1906

(Average Earnings for *Full Time*)

Trades.	1886 (Bad Trade).	1906 (Good Trade).	Per cent. Increase in 20 years.
	S. D.	S. D.	
1. Textile Trades—Men	22 11	27 7	20
Women	12 9	15 7	22
2. Clothing Trades — Men	?	30 2	?
(No comparison possible) — Women	?	13 6	?
3. Building Trades — Men	?	32 0	?
(No comparison possible) — Women	?	26 7	?
4. Public Utility Services—			
(*a*) Road and Sanitary Authorities	20 5	23 11	17
(*b*) Gas Supply	26 10	31 7	18
(*c*) Water Supply	24 6	28 3	15
5. Agriculture — England: Men	(1898) 16 9	(1907) 17 7	5
(Interval 9 years only) — Scotland: Men	(1898) 18 2	(1907) 19 7	7
6. Metal, Engineering, and Shipbuilding—Adult Men (For all workers in group 6 the increase is officially stated as 21 per cent.)	26 7	33 5	26

earlier investigation did not go into the same details. With regard to agriculture, we have a comparison of 1898 and 1907, in which period the English agricultural labourer gained 5 per cent. and the Scottish 7 per cent.

With regard to the textile trades, the Board of Trade refer to the different states of trade at the two periods, and they give it as their opinion (page xxi. of Cd. 4545) that we ought not to regard the 20 and 22 per cent. rises as a fair representation. They put it: "Having regard to the character of the years 1886 and 1906, and the years immediately preceding and following them, as set forth on the previous page, it would probably more nearly represent the facts to say that the average advance during the last twenty years has been about 16 per cent. for men and 18 per cent. for women."

If we turn to group 4, "Public Utility Services," which, as I have said, is a really representative schedule, because of the full returns, we find that the rise in actual earnings ranged from 15 to 18 per cent. It is probable that the real rise in the textile trades was less rather than more, and we have confirmation of the Board of Trade's textile estimate, with the probability that it somewhat exaggerates the real rise, since municipal wages have probably risen more than private wages in recent years.

With regard to group 6, the rise for men only, taking the crude comparison of 1886-1906, works out at 26 per cent., and the rise for all workers at 21 per cent. From these figures we have again to make deduction for (1) the fact that the worst wage payers do not make returns, and (2) the comparison of a bad year with a good year. Probably here the real rise was not more than 18 per cent.

It appears probable, therefore, that in the period 1886-1906, actual earnings in full time increased by about 15 to 18 per cent. throughout the country, and no further advance was made down to 1910. Unfortunately, however, a discount has to be made from the gain of about 18 per cent. in 25 years, because of the recent rise in prices. The contrast between wages and prices is as follows :—

EARNINGS AND PRICES, 1886-1910
(1886 = 100)

	A Earnings	B Wholesale Prices
1886	100	100
1896	?	87
1910	115 to 118	107
Increase per cent. in 25 years	15 to 18	7

Column A expresses the facts we have just examined. Column B shows the variation of wholesale prices (45 principal articles). We have not a Board of Trade inquiry into retail prices for so long a period, for until recently little interest was taken in the subject. We may take it as approximately true that *in the last quarter of a century, actual earnings have risen from* 15 *to* 18 *per cent., while the cost of living has risen by about* 7 *per cent.*

I cannot say what earnings were in 1896, because, as I have explained, there was no inquiry in that year, but I have given above the prices of 1896, and this will show how, in 1886-1896, the worker—whose money wages were rising—gained in real wages by a continued fall in prices, and it also shows how, since 1896, the worker has lost through rising prices a small part of the rise in real wages of the last twenty-five years.

(4) *Wages in Four Decades*

Having examined the rates of wages of fifteen years, and the actual earnings, so far as they have

been investigated, of the last twenty-five years, let us take a longer survey, with the assistance of the facts compiled by the Board of Trade and published in the blue-book on British and Foreign Trade and Industry (Cd. 4954). The table on page 30 reviews the years 1874-1910, with the aid of further information from the *Labour Gazette.*

The first column of the table shows that, representing the rates of wages of 1900 by 100, those of 1874 are represented by 92, which means that the rates of wages in these trades in 1874 were 92 per cent. of those paid in 1900. This may be expressed in another way by saying that between 1874 and 1900 the rates of wages in these groups of trades rose by 8.7 per cent. Down to 1910, it will be seen, little further advance was made.

It should also be noted that the rates of wages in these trades were almost stationary in the long period 1874-1898—a period of a quarter of a century. Even in 1906 the index number is but 6 points higher than in 1874.

We pass to prices. The second column shows that, again representing the year 1900 by 100, the prices of 1874 are represented by as much as 148, which means that prices fell in 1874-1900 by nearly one-third.

It will further be seen that the fall in prices

WAGES AND PRICES

Variation of (1) Money Wages, (2) Wholesale Prices, and (3) Retail Food Prices in London.

(1900 taken as 100. Other years expressed as percentages of 1900.)

Year.	Money Wages.	Wholesale Prices.	Retail London Food Prices.	Remarks.
1874	92	148	...	Money wages fell.
1875	90	141	...	Prices fell considerably.
1876	89	138	...	Real wages rose.
1877	88	142	...	
1878	85	133	...	
1879	83	127	...	
1880	83	130	...	
1881	85	127	...	Money wages recovered.
1882	86	128	...	Prices fell greatly.
1883	86	127	...	Real wages rose considerably.
1884	85	115	...	
1885	84	108	...	
1886	83	102	..	
1887	83	100	...	
1888	85	103	...	
1889	88	104	...	
1890	90	104	...	
1891	92	107	...	Money wages rose.
1892	90	102	...	Prices fell and rose again.
1893	90	100	...	Real wages rose.
1894	89	94	...	
1895	89	91	93	
1896	90	88	92	
1897	91	90	96	
1898	93	93	102	
1899	95	92	96	
1900	100	100	100	
1901	99	97	102	Money wages almost stationary.
1902	98	97	102	
1903	97	97	104	Prices rose considerably.
1904	97	98	105	Real wages fell.
1905	97	98	105	
1906	98	101	103	
1907	102	106	106	
1908	101	103	109	
1909	100	104	108	
1910	101	109	110	

after 1874 continued almost uninterruptedly *until* 1896, *when the fall was checked, and an upward movement began.*

In 1910, it will be seen, the wholesale prices index number rose to 109, which is 21 points above that of 1896, and which is higher than in any previous year since 1884. In 1910, that is, wholesale prices had gone back to the level of twenty-five years ago.

Retail prices do not vary directly with wholesale prices, but the correspondence is general, and the wholesale price index number given in the second of column the table, is a fair guide to the general course of retail prices.

Unfortunately, information as to retail prices has not been collected very carefully until recently, but the Board of Trade London retail food price index number, based on London prices since 1895, is given in the third column of the table. It varies in very much the same way as the wholesale number, but as foods are its basis, and many of these have risen greatly, the rise is even more pronounced than in the second column.

Now let us piece this information together.

In the 'seventies, cash wages fell somewhat after the great boom of 1872-3. Prices, however, also fell, and fell very much more than rates of wages. As a net result, *real wages rose in the seventies.*

In the 'eighties, rates of wages were very nearly stationary, but recovered all, or nearly all, of the slight fall of the previous decade. The position of the workmen very greatly improved, however, because of the great fall in prices. Between the recovery in rates of cash payment, and the increased purchasing power of money, *real wages rose considerably in the 'eighties.*

In the 'nineties, money wages took an upward turn at the end of the decade, reaching in 1900 almost the level of the present day. This last decade of the nineteenth century was marked as to its first half by a rapid fall in prices, and as to its second half by a rapid rise. Taking the effect of alterations in rates of wages and variations in prices together, *real wages rose in the 'nineties.*

Finally, we come to the first decade of the twentieth century, which we have already found to be a period of considerable loss for the wage-earners.

Generally, the gain in real wages which marked the first half of the Free Trade era, down to 1873, is seen to have continued, more or less uninterruptedly, until about fifteen years ago.

It should be noted that the gain of labour as a whole in the last generation has been rather greater than is shown in the table on page 30, because of a certain shifting of labour from low paid to better paid occupations.

(5) *Remarkable Figures from Woolwich Arsenal*

It occurred to me last year that our meagre records of wages and earnings might be usefully enlarged by obtaining from the War Office a record of the actual earnings of men employed by the Government at Woolwich Arsenal. Accordingly, I put the following question on the House of Commons' notice paper :—

"To ask the Under-Secretary of State for War, if he will state for each of the years 1880, 1885,

EARNINGS OF MEN AT WOOLWICH ARSENAL

Statement of Numbers of Men employed and Wages paid in Ordnance Factories, Woolwich, in the Financial Years 1880–1, 1885–6, 1890-1, 1895-6, 1900-1, 1905-6, and 1910-11.

Financial Year.	Average Number of Men on Weekly Wages.	Aggregate Wages of Men.	Average Annual Wages per Man.
		£	£ s. d.
1880-1 .	4,189	375,540	89 12 11
1885-6 .	7,659	797,067	104 1 4
1890-1 .	9,684	870,995	89 18 10
1895-6 .	10,014	949,488	94 16 3
1900-1 .	16,257	1,767,806	108 14 9
1905-6 .	12,962	1,226,807	94 12 11
1910-11 .	9,737	992,541	101 18 8

1890, 1895, 1900, 1905, and 1910, the aggregate of the weekly wages paid at Woolwich Arsenal, excluding boys' wages, the number of men employed, and their average earnings" (15*th June* 1911).

In reply I was officially furnished with the facts given in table on the previous page.

The earnings in 1910-11 were but 13 per cent. higher than in 1880-1, thirty years before. War swelled the earnings in 1900-1, but in 1905-6 earnings were at parity with 1895-6, and little above those of 1880-1. It must be borne in mind that an alteration in the proportions of the grades of men employed may have played its part, but such an explanation can give us no particular satisfaction.

The general impression conveyed by the table goes to confirm that made by the close investigation of railway earnings.

(6) *So Many Years: so Little Progress*

Satisfactory as it is to compare the wages of to-day, or the wages prior to the recent rise in prices, with those of the dark days of two generations ago, we shall do well to view the subject in longer perspective. Let us go back further still,

in the guidance of the late Professor Thorold Rogers. Let us turn to that invaluable record, "Six Centuries of Work and Wages," and see what Thorold Rogers had to say regarding the progress of the British working classes since the fifteenth century. Writing in 1884, a date which is covered in the period we have just examined, he said :—

Some of the working classes in London, and those who have been long educated in the machinery of labour partnerships, have at last regained the relative rate of wages which they earned in the fifteenth century, though, perhaps, in some particulars, the recovery is not complete.

The professor goes on to illustrate his point. In 1450 an under-overseer earned 3s. 4d. a week for ten months in the year, and 2s. 10d. for the remaining two months. At the values of the ninth decade of the nineteenth century, that was equal to 40s. a week for ten months and 34s. a week for two months. There was little unemployment in the fifteenth century, the workman missing only eighteen days of the year. Wheat was 5s. 10d. a quarter; beef 4s. 1d. the cut; fowls 1½d.; butter ½d. a lb.; cloth 1s. 5¼d. a yard. The working day was of eight hours.

Since Thorold Rogers wrote, real wages have risen, as I have shown, but the rise is not large

enough to give much cause for complacency. Some, but hardly all, of our workmen have regained the rate of real remuneration, as measured by commodities, won in the fifteenth century. They have certainly lost in stability of employment. They have gained, out of their greater complexity of labour, things to which the workman of the fifteenth century was a stranger—machine-made trash of sorts which some of them are set to make for the betrayal and deception of the others. The fruits of modern science are as yet scarcely tasted by the multitude; it is the garbage of progress which is thrown to the poor.

REFERENCE AND
27 JUL 1921
ASSOCIATION

II

A BRIEF STATEMENT OF THE CASE FOR HIGH WAGES

THE general proposition is this, and I advance it as a challenge to the intelligence of every thinking man, that *the workman who obtains an advance in wages is a benefactor of his country and his kind.*

That this proposition has not yet been borne in upon the majority of those who write matter for public consumption is only too clear from a perusal of current comments (1911-1912) upon "Unrest in the Labour Market." The most noticeable thing about these articles is that the chief desire of their authors appears to be that things should be "settled." How often one reads sentences like this :—

> "We are sorry to say that things are no nearer a settlement this morning."
>
> "We are glad to say that the prospect of a settlement is a little brighter this morning."
>
> "We earnestly hope that a settlement will soon be arrived at."

"We hope that nothing will be done by either side to postpone a settlement."

The request or the demand of workmen for a higher wage is rarely or never treated on its merits as a matter in which right and wrong is involved, and with which is bound up the progress of the nation as a whole, but as an exceedingly uncomfortable thing which needs to be "settled," it matters not how settled, as long as settled. Yet, if the great mass of working people—almost the entire nation that is—do not continuously secure higher wages, the nation must cease to advance both actually and relatively to other nations.

Not the manual worker alone, but all classes of workers, including professional men, traders, agents, travellers, clerks, teachers, and others, are vitally interested in this matter. It is a misfortune for so many of them that they do not realize it. Here is Mr Septimus Peebles, architect (I hasten to say, out of regard for my publisher, and in view of the ass that the law is making of itself in connexion with libel actions, that I do not refer to any particular Mr Septimus Peebles, architect, and do not know if a Mr Septimus Peebles, architect, actually exists; if he does, it is not he to whom I refer), who reads his leader with religious regularity. He reads that trade is

being driven abroad by the "paid agitators" who incite peaceably disposed workmen to rebellion. He reads it out with approval to his wife at the breakfast table, and she agrees with him that it is terrible to think of the pass that things are coming to. He goes to town in a second-class railway carriage, nearly every occupant of which is reading a similar leading article, and every thoroughly respectable occupant of which is filled with an indefinable class suspicion of men who work with their hands. He really believes himself robbed in his profession by the efforts of working men to obtain a higher wage.

But what is the truth on this head? The housing question is, above all, a wages question, and it is quite impossible for workmen, as they are at present paid, to command with their wages such houses as by this time ought to be the homes of the British people. Because workmen cannot command decent homes there is loss of work for architects, and Mr Septimus Peebles is betrayed by his prejudices to desire the continued underpayment of the great mass of his fellow-countrymen, which alone can create a large amount of work for architects.

Or take the case of the shopkeeper. How often we find him filled with the belief that low wages are for his benefit. A moment's reflection ought to

show him that low wages means a low power of consumption. He stands at his door hungrily waiting for customers. Why do they not come? Why is there not a greater demand for boots and furniture and hats and clothes and ironmongery and china and glass? The answer is that when the food bill is paid, the miserable balance left out of 21s., or 25s., or 35s. (few get more than 35s.) suffices to buy occasionally a small amount of the most rubbishy stuff put on the market. There are but a few hundred thousand really good customers in all our 45,000,000 of people.

Or take the case of the manufacturer. He employs travellers to go to the shopkeepers to obtain orders. Why are there not more orders obtainable? The answer is that because the workers cannot call on the shops, the shops cannot call on the manufacturers. Plant and machinery lie idle which ought to be busily pouring out commodities. The manufacturer's management and standing expenses are running just as though his factory was working full time. It needs but the stimulus of higher wages to set the wheels going, and yet we find the majority of manufacturers blindly resisting the application of the very stimulus which would give them trade. A, the manufacturer, denies customers to B. B, the manufacturer, denies customers to A.

Putting the case thus forward, I have been met with the argument that higher wages must mean higher prices, and that consequently the workman can gain but nominally from increased remuneration. I will deal with this contention.

The first point of the reply is this. *Even if the whole of an increase in wages were immediately added by the employer to the aggregate price of his output, the price of his commodities would not rise in the same proportion as the wages.* Wages form only one factor in price, and many of the other factors would not vary. For example, the greater part of the management and standing costs would remain exactly the same, and the profits, which are included in ultimate price, would, if calculated to remain the same, not add proportionately to the price of the entire output. Many materials would not rise at all, and many would not rise in proportion. Therefore, as a mere arithmetical fact, it is not true that if wages were raised, say ten per cent., and the whole of the increase added to the price of the output produced by the labour concerned, prices would rise ten per cent.

The second point is this. *In the division of product between master and man, there is room for all sorts of adjustments as to how the product should be shared.* For example, we go into a tea shop and pay 2d. or 3d. for an amount of tea worth a very

small fraction of a penny, and we are waited upon by a girl who is paid about 2d. or 3d. an hour. Is it imagined that if the 2d. or 3d. an hour were doubled the price of the cup of tea would be doubled? If the price of the cup of tea were doubled, the consumption would so greatly fall off that the masters would lose all, or nearly all, their business. Indeed, even if ½d. or 1d. were added to the price, so much trade would be lost that it is almost certain the price could not be raised at all. The extra wage would come out of the handsome dividends which are taken by the sleeping shareholders in the tea-shop company. Tea-shops in London, for example, could easily afford to double their wages bills, and yet pay big dividends on the real capital involved.

If we illustrate this point by the railway service, it is the extraordinary fact that railway profits amount to £47,000,000 a year. This sum is greater than ALL the salaries and wages paid for mental and manual labour on the railways, from general managers and locomotive superintendents to porters. Ten million pounds taken from railway profits and added to wages would leave the shareholders with a princely £35,000,000 a year, which would pay a large dividend on all the REAL capital used in the railways and a not inconsiderable dividend on the nominal capital of all the necessary,

and even all the many unnecessary railway lines, including every drop of the oceans of "water" which goes to its making.

The third point is this. *Although wages are, of course, an element in price, it does not follow that, as wages rise, wages form an increasing element in price.* On the contrary, modern economists have discovered that the royal road to efficiency of output, which is the same thing as cheapness of output, is to employ highly paid labour upon the most expensive machinery and plant, erected in costly and hygienic factories. High wages produce efficient workmen, and efficient workmen produce more for high wages than inefficient workmen produce for low wages. Let me give an extreme case. Lancashire cotton wages are enormously higher than Japanese cotton wages. Yet the high cotton wages of Lancashire are cheaper than the low cotton wages of Japan, because the Lancashire operative produces so much more than the Japanese operative per unit of wages. Ill-paid labour is dear labour; well-paid labour is cheap labour.

The fourth point is this. *The payment of high wages leads the manufacturer to carry on his business efficiently, and therefore to produce cheaply.* Low wages are a curse to the employer and a curse to the industry in which they are paid. While men or women can be bought cheaply, the employer

does not worry about efficiency. There is no doubt whatever that the success of Trade Unionism in Lancashire, the consequent raising of wages, and the consequent equal wages for men and women which is a rule of the trade, have done more than anything else to make the Lancashire trade as efficient as it is. To give an example of another kind, the fact that girls' labour could be bought cheaply for domestic service is the explanation of the extraordinary backwardness and inefficiency of household industry. Inventors have not in the past applied themselves to improving stoves, washing appliances, sweeping appliances, and so forth, because female labour could be had for £15 to £18 a year plus a fraction of a miserable attic and a little poor food. Because it is becoming more difficult to get domestic servants cheaply, we see at last on the market some inventions to make households efficient.

The fifth and final point is this. *High wages, by increasing consumption, enable producers to run their plant at full economic pressure and so to economize in output.* A rise in wages is equivalent to a spur to every department of industry. Production becomes cheapened because the scale of production is enlarged. Each advance in wages is a new stimulus to production.

It remains to deal with another objection which

has been raised, and I have been asked by one who is inclined to admit the general truth as to the economy of high wages, "What of foreign competition? How are we to maintain our exports if British wages rise above those paid abroad?"

This objection does not really raise a new point. If the general case for high wages is true, then high wages must assist instead of diminishing export trade.

Let us bear in mind the case for high wages. It is that it produces efficiency in (1) the employee, (2) the employer, and (3) industrial plant. This being so, the efficiency of man, master, and factory must have the same results in relation to export trade as in relation to any other department of trade. And it must be true that the nation which pays high wages will beat the nation which pays low wages.

If anyone is inclined to think that this is pretty theorizing not borne out by everyday facts, let him pose the following question:—

Question: Which is the greatest exporting country in Europe?

Answer: The United Kingdom, the rates of wages in which, unsatisfactory as they are actually, are relatively the highest in Europe.

If anyone thinks it mere chance that this is so, let him ask himself another question :—

Question : Which European nation, next to the United Kingdom, has the largest export trade ?

Answer : Germany, the wages paid in which are, next to those of the United Kingdom, the highest paid in Europe.

Let us take this a little further. Which three great nations in the world have the highest rates of wages? The answer is: The United States, the United Kingdom, and Germany. These three nations, which pay the highest wages, have also by far the largest export trades in the world. If the payment of low wages really means the gain of competitive power, then it would be the low-wage countries and not the high-wage countries which would be at the head of commercial affairs.

Let us compare two great Protectionist nations, Germany and France. The remarkable thing about these two countries is that, since the Franco-German War, Germany has beaten France out of hand in almost every department of industry and commerce. This may be illustrated by the following deeply interesting and significant figures relating to the exports of the domestic productions of the two nations :—

EXPORTS OF GERMANY AND FRANCE SINCE 1880.

	France.	Germany.
	£	£
1880	139,000,000	145,000,000
1885	123,000,000	143,000,000
1890	150,000,000	166,000,000
1895	135,000,000	166,000,000
1900	164,000,000	227,000,000
1905	195,000,000	282,000,000
1910	240,000,000	367,000,000
Increase	£101,000,000	£222,000,000
Increase per cent (about)	70	150

Here are two countries with the same fiscal policy, so that the fiscal factor, which so often at this time clouds the intelligence of men who endeavour to think, is eliminated. The one Protectionist country has beaten the other in hollow fashion. Starting at about the same level thirty years ago, Germany has increased her exports about 150 per cent., while France has increased hers about 70 per cent.

Is the explanation that Germany is paying lower wages than France? No, the fact of the case is that German wages are higher than French wages,

and are rising more rapidly. If high wages checked exports through dear production, Germany would have suffered severely and France would have taken the lead of her.

Now let us make an interesting comparison of the rise of German exports and the rise of German wages. The great Krupp works in Germany afford a very interesting clue to the rise of wages in Germany. In the following table, I compare the average daily earnings (not mere rates of wages) at Krupp's with German exports.

GERMAN WAGES AND GERMAN EXPORTS

Year.	Average Daily Earnings at Krupp's Arsenal.	German Exports.
	s. d.	£
1880	3 1¾	145,000,000
1885	3 7	143,000,000
1890	3 10½	166,000,000
1895	4 0½	166,000,000
1900	4 8½	227,000,000
1905	5 0½	282,000,000
1910	5 4¼[1]	367,000,000

It will be seen that in the earlier part of the above period German exports did not rise much, neither did German wages rise much. It is in the

[1] £83, 16s. per annum; the average wage at Woolwich Arsenal in 1910 was £101, 18s. 8d.

latter part of the table that German wages and German exports are seen to be rising together.

But it is unnecessary to go abroad for proof of the strengthening of export trade by higher wages. The industries in which Britain chiefly shines, and the trades in which she exercises the greatest power in exporting, are precisely those in which rates of wages are highest.

III

"OF ALMOST RELIGIOUS IMPORTANCE"

AT the end of 1911 I obtained from the Board of Trade the following information as to the recent relative progress of the British and German railway systems :—

BRITISH AND GERMAN RAILWAY MILEAGE

Year.	United Kingdom (Private Ownership).	German Empire (National Railways almost entirely).
1906	23,063	34,103
1907	23,108	34,619
1908	23,205	35,037
1909	23,280	35,617
1910	23,387	36,294
Increase	324	2,191

When it is remembered that railways are the main arteries of trade, the above figures make unpleasant reading for the British reader. He does not often have the opportunity of reading them, by the way, for no one seems to have any interest in giving him that opportunity. He is

told that our railways are the "best in the world." They have good need to be, for they are forming an ever-decreasing proportion of the railways of Europe. The British figures become even more unhappy when it is remembered that our railway mileage expresses so many unnecessary lines, as well as the lack of necessary ones. The German railway mileage is as to every mile useful, either economically or for defence.

In the ten years 1899-1909 passenger receipts on the German State railways rose by as much as 55 per cent. In the same ten years passenger receipts on the British private railways rose by only 13 per cent. In the same ten years the average charge of carrying passengers on the German State railways, by ordinary trains, fell by 14 per cent., being only nine-tenths of one halfpenny per mile in 1909. For the same ten years I have no comparative British figure, but there is no doubt that we pay more than the German rate.

Economically managed as the German State railways always are, and greatly as they assist German trade and agriculture by low freights and special facilities, Germany is (1912) about to take another great step forward which we shall do well to ponder.

While we have been appointing (1911) a Royal Commission to investigate the working of a Con-

ciliation Scheme, Germany has been considering the Report of the Prussian State Railway Administration on the advantage of the electrical working of railways. While our railways are at a standstill for want of capital, the German railways, with their real economic capital, representing moneys-worth and not fiction, are to launch out in a great national scheme of power conservation.

What is it that the railway administration has reported? It shows that the electrification of the German main lines will be—

(1) Good for the railways as railways.

(2) Good for Germany as a whole.

On the first point, the successful German State experiments on the Magdeburg-Halle line have proved conclusively that passenger and freight trains can be run electrically with considerable reductions of cost. The cheapest coal—lignite or brown coal—can be used, whereas a steam locomotive demands good steam coal.

Thus, merely from the railway point of view, there will be great gain. Railway costs will be reduced, not to make dividends for shareholders, but—

(1) To reduce fares still further.

(2) To reduce freight rates still further.

(3) To raise wages.

(4) To furnish further handsome sums to the

various State Treasuries in reduction of taxation. (The German State Railway profits are already £50,000,000 a year.)

But that is the least part of the matter, important as it is. The German official report goes on to point out what railway electrification will mean to Germany.

To run a great railway system electrically means that electrical power has to be produced in enormous quantities. That means the cheap production of power.

Through cheap power, Germany will in the course of a few years possess great State power-producing stations, and these stations, producing in such bulk, will be able to furnish cheap power to factories and to homes.

To factories, cheap power means new life. German industry will be strengthened and invigorated by economic and convenient power supplies.

To the city and the home, cheap power means cleanliness, health, and less of drudgery for women. It means longer life for the toiler, and a longer life better worth living.

This German official report understands and realizes all this. It takes account of the industrial and social, as well as of the technical effects of the electrification of railways.

What are we doing, here in the United Kingdom,

in this connexion? Have we no engineers alive to the gravity of the issues at stake?

In November 1910, Mr S. Z. de Ferranti, President of the Institute of Electrical Engineers, delivered his inaugural address to the members of that body. It was a remarkable utterance, and it is most unfortunate for the nation that it should have synchronized with a political crisis which cut down the reports of what he had to say to the smallest dimensions, and for the most part reduced the speech to its least important elements.

The effect of Mr de Ferranti's speech was that through Power Reform, England could regenerate her industries, her agriculture, and her dwelling-places. The essentials of the problem are as follows. The wealth of the United Kingdom is built upon the possession of enormous supplies of coal. The burning of that coal, wastefully as it is done, enables us to carry on great industries, and to sustain an enormous population which otherwise could not exist within our borders. So clumsy and uneconomical is the use of the coal, however, both in industrial and domestic affairs, that the cost of manufacturing is unnecessarily high, and the cost of heating dwelling-places almost entirely resolved in waste.

In industry, some 90 per cent. of the energy of coal is wasted in transformation, and the average

domestic fireplace sends more than 90 per cent. of the coal bought by the householder up the chimney to pollute the atmosphere and to cause an enormous amount of wasted labour in a vain attempt to cope with the pollution. As for cookery, the domestic kitchener usually consumes some five to ten shillings worth of coal to give the householder the use of the energy actually contained in one pennyworth of coal.

The general proposition of Mr de Ferranti is that a nation possessing great stores of coal should set up great electrical power stations at the coal mines, and distribute power, not in the bulky and inconvenient shape of coal, but in the fluid and convenient form of current. Thus, from a number of centres, power would be radiated with economy, convenience, and an entire absence of smoke and dirt. A great cheapening of electricity would obtain, and current would be universally used for power, for light, for warming dwelling-places, and for all domestic purposes. And beyond there are the other possibilities referred to by Mr de Ferranti, —the use of electricity to stimulate the growth of crops and even to regulate climate.

But how is Britain ever to achieve coal economy while electric power development is left, as it is now left, to haphazard public and private enterprise? Already many uneconomic power-plants have been

set up by various private owners and by various municipal authorities. Many of the unfortunate errors which were made in connexion with the development of our railway system are being repeated in this even more important matter of power. We allowed our railways to grow up anyhow, so that they now run in places where they ought not to run, and do not run in places where they ought to run, and are burdened with fictitious capitals which prevents the companies from carrying out urgently needed reforms. It is very necessary that we should not repeat our mistake in the matter of electricity, and there is only one way of avoiding it. It is our duty, without further delay, to make this question of Power Reform a national question. We need to set up a commission of electrical experts such as Mr de Ferranti himself, to map out the whole country in an electrical sense, to delimit economic power areas, and forthwith to set about the task of regeneration through electricity.

The alternative is to witness the continued erratic growth of all sorts of large and small electric undertakings, good, bad, and indifferent, dealing in small with a business which is enormous in its magnitude and national in its importance. It is obvious that local government areas do not coincide with economic power areas, and that, therefore, Power Reform is not a matter for local

government bodies to attack locally, but for a Power Commission to attack nationally.

I have pointed out before that the ancient British idea that taxes are the only way to secure national revenue is a profound error for which we are now paying dearly, and for which in the time to come we shall have to pay more dearly still if we do not look to it. The kingdom of Prussia, in making its budgets, starts with one-half of the revenue required ready to its hand in the shape of profits on railways, forests, mines, post office, and other revenue-producing undertakings. The British Government has merely the profit of the post office and the revenue derived from Lord Beaconsfield's purchase of the Suez Canal shares. Where Prussia has but to raise taxes for half of her revenue, we have to raise taxes for almost the whole of our revenue. If the various German States had not these fine national revenues, the German Empire would be quite unable to cut such a figure in the world.

The matter of Power Reform is worth consideration from the point of view of State revenue. In the time to come, when, beyond any shadow of doubt, electricity will do all our work for us, those who own electric power plants will have such a power of taxation as never before existed. Are we content to resign that power largely to private

hands? I submit that it would be wise for the nation to consider such a source of revenue as a thing not to be lightly regarded, and certainly not as a thing to be resigned to private undertakers.

But profit after all is a secondary question, although it is bound to arise incidentally. The really important thing is to place power in the most economic shape at the disposal of the entire nation for every conceivable purpose demanding any form of motion. The purpose is, in essence, to make British coal effective as it has never been effective before—to conserve it, and at least to treasure it for what it is, the most important of our material possessions.

Stanley Jevons truly said that the British coal question was one "of almost religious importance, which needs the separate study and determination of every intelligent person." I confess that I see no indications of that study and determination. Let us recall what Jevons wrote in 1865. Speaking of the marvellous changes which the development of coal wrought for the British people, he said in "The Coal Question":—

"The history of British industry and trade may be divided into two periods, the first reaching backward from about the middle of the eighteenth century to the earliest times, and the latter reaching forward to the present and the future. These

two periods are contrary in character. In the earlier period Britain was a rude, half-cultivated country, abounding in corn, and wool, and meat, and timber, and exporting the rough but valuable materials of manufacture. Our people, though with no small share of poetic and philosophic genius, were unskilful and unhandy; better in the arts of war than those of peace; on the whole learners rather than teachers.

"But as the second period grew upon us many things changed. Instead of learners we became teachers; instead of exporters of raw materials we became importers; instead of importers of manufactured articles we became exporters. What we had exported we began by degrees to import; and what we had imported we began to export."

Is there any danger of a further change? Indeed there is.

A question was put in the House of Commons recently directing attention to the warning uttered on 30 August, 1911, by Sir William Ramsay, the President of the British Association, with regard to "the exhaustion of the coalfields" of the United Kingdom, and an answer as given by the Home Secretary which demands our very serious consideration. Those of us who, following in the footsteps of Jevons, have endeavoured to understand this all-important subject, are often driven to

despair of obtaining consideration for the real point at issue.

What Sir William Ramsay said to the British Association was that, taking the estimate of the last Royal Commission on Coal Supplies, that we have about 100,000,000,000 tons of coal in proved fields, it was a reasonable calculation that that supply would last us, in view of the increase in the rate of output, for 175 years. Upon that he commented :—

> "Our commercial supremacy and our power of competing with other European nations are obviously governed, so far as we can see, by the relative price of coal; and when our prices rise, owing to the approaching exhaustion of our supplies, we may look forward to the near approach of famine and misery."

And upon that Sir William Ramsay put in a plea for legislative attention to the conservation of the British coal upon which British power is built.

It will be perceived that the President of the British Association did not merely refer to the "exhaustion" of British coal. If he had done no more than that he would have shown lack of comprehension of the coal question. He went on to show that he fully understood that it is *the relative price of coal* that matters.

In the answer given by the Home Office the

question of relative cost—the real question, that is—was entirely put aside, and a complacent statement was prepared to the effect that we have perhaps 150,000 million tons instead of 100,000 million tons of coal, if we take into account (1) coal at greater depths than 4000 feet, and (2) coal in unproved fields. Further, says the Home Office, we must not assume that the rate of coal output in the future will go on increasing at the same rate as in the past.

When a government department can prepare an answer like this, we need not wonder if men without the resources of government departments are badly informed. The Home Office ought to know that there exists in the United Kingdom in 1912, to go no further, more than one mining village which has lost a great part of its population, not because of the *exhaustion* of the mines which once gave work to larger populations, but because, *although coal remains, it no longer pays to get it.*

It has regrettably to be added that we have had two Royal Commissions on our Coal Supplies, and that the reports presented by both of them were jejune in the extreme. The report of the Commission which reported in 1871 is indeed, in the words of Mr D. A. Thomas, an "extraordinary production." The report of the Commission which reported in 1905 was disappointing, to say the least of it. It largely failed to deal with the crux of the problem,

and by providing a nice fat, comfortable-looking figure of "100,000,000,000 tons" for the confusion of leader writers, served not to elucidate but very literally to bury the subject.

The Home Office ought to know that it really does not matter a scuttleful whether we have 100,000 million tons or 150,000 million tons of coal. We might have ten or twenty times these quantities, and yet for practical purposes have no coal at all. The real point is, *how much coal have we which can be got cheaply enough to maintain our competitive power as a nation of large scale manufacturers*?

Unconsciously, the Home Office supplied, in the answer to which I have referred, a reply to this question, which, if it had been fully understood by those who wrote it, would have given them pause.

The Home Office pointed out, in the words of the last Royal Commission, that the rate of increase of output of British coal will (1) become slower, (2) become stationary, and (3) decline. Let us consider the grave meaning of these things, which the Home Office regarded so ingenuously. Let me give, in view of the vital importance of the subject, the actual utterance of the Royal Commission :—

> "The present annual output [of British coal] is in round numbers 230 million tons, and the

calculated available resources in the proved coalfields are in round numbers 100,000 million tons, exclusive of the 40,000 million tons in the unproved coalfields, which we have thought best to regard only as probable or speculative. For the last thirty years the average increase in the output has been 2½ per cent. per annum —and that of the exports (including bunkers) 4½ per cent. per annum.

"It is the general opinion of the District Commissioners that, owing to physical considerations, it is highly improbable that the present rate of increase of the ouput of coal can long continue—indeed they think that some districts have already attained their maximum output, but that on the other hand the developments in the newer coalfields will possibly increase the total output for some years.

"In view of this opinion and of the exhaustion of the shallower collieries, we look forward to a time, not far distant, *when the rate of increase of output will be slower, to be followed by a period of stationary output, and then a gradual decline.*"

Let us put this another way. At a time not far distant, owing to the exhaustion, not of the total supplies, but of the easily-won supplies,

the price of British coal will rise perceptibly and check consumption; thereafter the consumption will become stationary, which will mean stationary industry, and again thereafter consumption will fall, which will mean declining industry.

It is really difficult to know from their report whether the last Coal Commissioners fully grasped the meaning of their own conclusion. Certain it is that the Home Office could not have stated the facts with complacence if they had given fuller attention to their actual significance.

British industry is founded upon the possession not merely of coal, but of *cheap* coal—coal of good quality, near the surface, and near the sea. Discussion as to exhaustion is entirely beside the point. It is exhaustion of the cheaply won coal—the coal which gives us our pre-eminence—that really matters. Every year makes a scarcely appreciable call upon the total reserves of British coal, but it makes a quite appreciable call upon the part of our reserves which really counts. There is little doubt that, in the lifetime of many of those who read these lines, the British coal-mines will have been creamed, and the British coalfields reduced to the level, in point of cost of production, of many foreign and Colonial coalfields which cannot now produce on level terms. Further,

when the cream of our coal has been taken, there will remain in American, in Chinese, and perhaps in some other coalfields abroad, enormous quantities of easily won coal which we shall then lack.

Even to-day, to go no further, the average price of a ton of bituminous coal at the pit's mouth in the United States is only about one-half what it is here. That means that America, if she had a saner fiscal system, could deprive us of much of that export trade without which a large part of our population would have to disperse itself about the world to find a livelihood. America will not always be fiscally mad, and presently she will have the Panama canal and a fine shipping.

Is it useful to talk of these things? I submit as an answer to this question that Sir William Ramsay is entirely in the right in seeking to direct the attention of our governing classes to the necessity for coal conservation. The practical point is that if our coal-power were economically used, the question of coal appreciation, which means national disaster, might be indefinitely postponed. From the colliery itself, where any day you may see colliery engines of the most wasteful type, to the domestic hearth, the greater part of our coal is burnt to produce waste, filth, and unnecessary work for women. Coal conservation is a primary national duty.

But how are we to fulfil this duty? Coal conservation on a great and adequate scale cannot be attempted while the powers of government remain unallied with the control of the national supplies of energy and the main transport system.

Given the nationalization of railways, the rest might easily follow. The electrification of unified national railways, which, as we have seen, has been decided upon by the Germans, implies the creation of great public power-stations. With the Power Service publicly owned, and worked under the guidance of a permanent Power Commission, the regeneration of industry, and, indeed, of social life, would become a simple possibility.

IV

THE CRADLE AND THE EMIGRANT SHIP

IT is the peculiar vice of the fiscal controversy that it gives a false importance to one particular form of government interference—a form indirect in method and obscure in action—and drags every conceivable subject into a fictitious relation with itself. There are no things in heaven or earth irrelevant to the Protectionist's philosophy. Tariff or no tariff—nay, a very small tariff or the absence of a very small tariff—is curiously conceived to be the determining factor in every department of national affairs and in every symptom of change.

Amongst the many matters thus absurdly related to fiscal policy, emigration statistics have lately played a considerable part. One daily paper in 1910 for weeks kept standing in large type the alliterative suggestion that there was a "Flight from Free Trade." The topic for a time filled the place in Protectionist speeches which was once devoted to Mr Chamberlain's declining exports, which later was taken by tales of the selling out of

foreign investments, and which later still was occupied by another story, doubtless equally sincere, that, so far from selling out foreign investments, we were buying them too rapidly. And as emigration statistics are not a little obscure, it is not difficult for the Protectionist to extract from them a fearful joy.

A.—HOW EMIGRANTS MAY BE ROUGHLY ESTIMATED

British subjects who were (1) Passengers outwards to Non-European Countries, and (2) Passengers inwards from Non-European Countries : 1906-1910.

Year.	(1) Passengers from U.K. to places out of Europe.	(2) Passengers from places out of Europe to U.K.	Excess of Passengers outwards.
1906	325,000	130,000	195,000
1907	396,000	161,000	236,000
1908	263,000	170,200	91,000
1909	289,000	149,000	140,000
1910	398,000	164,000	234,000

No one knows, or ever will know, how many people "emigrated" from the United Kingdom last year. We count those who leave and those who enter our ports, and inquire their destinations and origins, but we have no record of the precise number of persons or families who are actually

transplanting themselves permanently The examples in Table A will show how we form an intelligent idea, if an approximate one, of the dimensions of British emigration.

We make the assumption that inward and outward travellers for pleasure and business balance each other, and that the excess of outward passengers between the United Kingdom and places out of Europe roughly represents emigrants.

We shall see presently that there is another method of approaching migration statistics, but it will be well first to set out the figures which are arrived at by the above process as far back as this can be done.

In Table B, page 70, I give, for the years 1876-1911, "Emigrants" as arrived at by the above method, (2) Exports of British goods from the United Kingdom, and (3) the proportion of unemployed members amongst Trade Unionists according to the Board of Trade.

The vagaries of the emigrant column are sufficiently striking when considered alone. They become even more remarkable when compared, as I have compared them, with our export trade and the Trade Unionist unemployment rate. The export column does not tell us with certainty the condition of employment in the home trade, but the Trade Union percentage relates to work done

B.—UNITED KINGDOM, 1876-1910—(1) EMIGRANTS, (2) EXPORTS, (3) UNEMPLOYMENT

Year.	"Emigrants" by Method of Table A.	Exports of British Goods.	Unemployment: Trade Unionists.
		Million £	Per cent.
1876	38,000	201	3.4
1877	31,000	199	4.4
1878	58,000	193	6.2
1879	126,000	192	10.7
1880	181,000	223	5.2
1881	190,000	234	3.5
1882	224,000	242	2.3
1883	246,000	240	2.6
1884	151,000	233	7.1
1885	123,000	213	8.5
1886	153,000	213	9.5
1887	196,000	222	7.1
1888	186,000	234	4.1
1889	151,000	249	2.0
1890	109,000	263	2.1
1891	116,000	247	3.4
1892	112,000	227	6.2
1893	107,000	218	7.7
1894	38,000	216	7.2
1895	76,000	226	6.0
1896	60,000	240	3.3
1897	51,000	234	3.4
1898	49,000	233	2.9
1899	46,000	264	2.0
1900	71,000	291	2.4
1901	72,000	280	3.3
1902	102,000	283	4.2
1903	147,000	291	5.0
1904	127,000	301	6.4
1905	139,000	330	5.2
1906	195,000	376	3.7
1907	235,000	426	3.9
1908	91,000	377	8.6
1909	140,000	378	7.8
1910	234,000	431	7.5
1911	Rose considerably, to about 280,000	454	3.0

for both home and export, and is well known to be a fair barometer of the condition of trade as a whole.

The period examined opened in falling trade, culminating in the bad times of 1879; emigration increased. In 1880 trade improved, and in 1882-3 it was very good; nevertheless, emigration went on rapidly increasing. Then, in 1884-1886, trade became bad; yet emigration considerably fell. With the improvement of trade in 1887-8 emigration again increased, but with the further improvement of 1889-90, emigration fell considerably. In 1892-95 came slump, but the emigrants slumped also. Then came revival; emigration did not revive, but continued to fall. In 1900 emigration again increased, and went on increasing through bad and good trade alike, until 1907, when employment very greatly improved and became good. In 1908 came slump, and emigration fell with the slump. In 1909-1911 trade improved, but emigration greatly increased.

It is exceedingly difficult to generalize from such facts. Only one thing is clear, and it is that British emigration does not vary directly with the condition of employment, The second and third columns of the above table exhibit such a relation as we should expect; we see the unemployment rate varying with the condition of our export trade. There is no such reflex of the trade cycles in the

emigrant column. We must, however, in considering the recent figures, take account of the important and pertinent fact that real wages have been falling in the United Kingdom in the last ten years.

It is now of interest to examine the destinations of British emigrants in recent years, and this is done in the following table :—

C.—DESTINATIONS OF BRITISH EMIGRANTS: 1898-1910

("Emigrants" on basis of Table A)

(In Thousands)

Year.	To Canada.	To Australasia.	To Other British Possessions.	To U. S. A.	To Other Foreign Places.	Total.[1]
1898	8	4	8	30	—	49
1899	8	4	−5	39	—	46
1900	8	6	9	48	—	71
1901	7	7	12	46	1	72
1902	15	4	31	52	—	102
1903	46	4	31	65	1	147
1904	51	5	3	67	1	127
1905	63	7	7	61	1	139
1906	91	10	4	86	4	195
1907	118	14	—	100	4	235
1908	41	20	−3	31	1	91
1909	52	25	4	56	2	140
1910	116	33	10	74	1	234

[1] Owing to the use of "round" figures, the totals do not precisely correspond with the detail columns.

British emigration since 1901 has been swollen, it will be seen, chiefly by a movement within the British Empire. If there is anything at all in the conception of Imperial unity, this table exhibits not British "emigration" but chiefly British "re-settlement." Whatever doubt there may be as to some of the vagaries of Column 1 of Table B, there is no doubt whatever as to one great contributing cause. It is the expensive experiments in advertising the attractions they offer which is being made in the United Kingdom by Colonial Governments. Enormous sums are being spent by the Colonies in setting up attractive emigration offices in our great thoroughfares, and in carrying on a well-organized press campaign. Amongst the most attractive shop-window displays in the Metropolis are now to be counted the really excellent shows of produce made by Canada, Australia, and South Africa. Every day one may see the passer-by arrested by the exhibits of yellow corn and magnificent timber, and incredibly red-cheeked apples, inviting to sow and plough and hew and plant in lands of plenty. We find the "Daily Mail" (April 6-7, 1910) publishing on one page costly Canadian Government advertisements, supported by arrangement by editorial puffs, and on another page lifting its hands in horror at the idea of British workmen being driven abroad by the

curse of Cobden. Let me give some idea of the nature of the Colonial advertising for population. On Thursday, 24 February, 1910, the "Daily Mail" published a special page advertising for British citizens, which must have cost the Canadian Government and the Canadian Railway companies who ordered it many hundreds of pounds.

Mr J. Obed Smith, the Assistant-Superintendent of Canadian Emigration, advertised as follows :—

"CANADA OFFERS YOU 160 FAT AND FERTILE ACRES FOR NOTHING,"

and went on to quote an utterance of the Archbishop of York to the effect that within fifty or sixty years the capital of the British Empire would have removed to Canada.

The Canadian Grand Trunk railway system advertised a free homestead, work at good wages, and splendid opportunity along the line of the Grand Trunk Pacific Railway, which they alliteratively termed, "Canada's last best West," the Canadian Pacific, well displayed at the top of the page, and next reading matter, implored us not to "get left behind." British Columbia, on the same page, offered a "land of opportunity," plus light taxes, good laws, free education, and, surely this is the greatest bribe of all, *climate*.

On the following day the "Daily Chronicle" had

a page in which not only the Canadian Government, the Canadian Pacific, and the Canadian Grand Trunk sought to attract settlers, but the High Commissioner of the Commonwealth of Australia and the Salvation Army did their best to turn British citizens into British Colonial citizens. Australia, said the official advertisement, wanted (1) Men with capital to take up land, (2) Farm labourers, and (3) Domestic servants, and offered "assisted steamship passages."

The Salvation Army, it tells us, has now a "unique international Imperial organization in emigration," and states that "50,000 people recently emigrated through our agency."

Need we wonder if these efforts, exerted in a time of stationary money wages, and falling real wages, have proved successful? Is there not rather cause for surprise that an even larger success is not gained? At any rate, it does appear that the Colonies, by their advertising, have succeeded in attracting many thousands who, but for this new business of State advertising, would have remained at home in the United Kingdom.

There have been in the past some not altogether satisfactory features connected with promises held out to settlers by agents, not, I believe, official. It seems impossible to deny, however, that the

amount of re-settlement within the British Empire which has resulted from the energetic efforts of the Colonies is for the general good of the Empire as long as the central reservoir of population is filled more quickly than it is emptied. Those who desire that the world should continue to be led by the white races, must view the settlement out of Europe of a proportion of *increasing* European populations with almost unalloyed satisfaction. I therefore make no complaint as to the legitimacy of the advertising referred to. There are many men who would do well to leave Great for Greater Britain, and Canada has every right to endeavour to attract the attention of such emigrants. But I hope that the responsible character of the endeavours will not be overlooked. Some emigrants succeed and others bitterly fail. It is no little thing, the transplanting of a civilized human to a country yet in the making. I see the settler with his modest capital and his family facing the wilderness for the first time, and perhaps for the first time realizing what the wilderness is. Before him rolls the illimitable prairie, a sea of land, the settler a speck upon its bosom. There are few or no trees. The "160 fat and fertile acres" are without form and void. The nearest neighbour is miles away; the nearest township is many miles away. The cruelty of Nature is

revealed, and the man realizes how grim and how everlasting is the battle which has to be fought with Her. The civilised framework which at home was a matter of course, and therefore, unregarded, is left behind. There is no doctor or chemist or shop or club or public house round the corner. The meaning of the word cold is for the first time understood. And it goes hard with the woman in her hour of trouble. In a little while the man has either found that he has that in him which can subdue the wilderness, or he flees to curse those who prompted him to the enterprise.

In very truth, the world has cause to be grateful to those who populate the prairie. That there is need for proper organization and State aid in the formidable task is but yet dimly realized.

Apart from the Colonies, British emigrants go almost exclusively to the United States. In 1910, it will be seen, 159,000 people went to the Colonies, and 74,000 to the United States, making a total of 233,000 to English-speaking places, against only 1000 to places where a British citizen feels himself altogether a "foreigner." This is an important point which differentiates British emigration from any but that of the Spanish.

It is not possible to give figures relating to

D.—MOVEMENT FROM EUROPEAN PORTS TO PLACES OUT OF EUROPE

(In Thousands)

	From U.K.	From Germany.	From Spain.	From Italy.	From Austria-Hungary.	From Sweden.	From Denmark.
1898	141	22	38	139	55	9	2
1899	146	23	47	145	99	12	3
1900	169	21	55	172	117	16	4
1901	172	21	49	289	137	20	5
1902	206	31	44	295	185	33	7
1903	260	35	49	292	222	36	8
1904	271	27	79	267	163	19	9
1905	262	27	118	459	249	21	8
1906	325	31	118	523	313	22	9
1907	396	31	...	428	386	20	8
1908	263	20	...	246	103	9	5
1909	289	25	...	406	258	19	7
1910	398	25	...	...	...	...	...

British and foreign emigration which are entirely comparable. The figures in Table D, however, are taken by the Board of Trade from foreign official records, and are very roughly comparable.

All these figures relate to movement outwards, and not to net emigration, as in Table A, but there are many minor variations. Russia furnishes no figures, but we know from the United States record of immigrants that in 1907, 259,000, and in 1908, 157,000 Russians arrived in America.

Britain, Spain, Italy, Austria-Hungary and Russia thus stand out as the four great emigrating nations, and four of five of these have a Protectionist policy.

The small emigration from Germany, even when allowance is made for the fact that the German figure stands for the movement by sea only, is remarkable. As recently as 1881, 221,000 Germans proceeded to places out of Europe, so that German emigration has very considerably declined in recent years, even more perhaps than ours declined between 1881 and 1899. The Germans have become, like the French, a non-emigrating people.

This question of comparative migration may also be studied in another way. In the Board of Trade Bluebook, Cd. 4954, a valuable analysis is made of the movement of populations in Britain, Germany, and France in intercensal periods. The actual

E.—BRITAIN, GERMANY, AND FRANCE: MIGRATION DEDUCED FROM CENSUS AND VITAL STATISTICS

(– Sign indicates Loss; + Sign indicates Gain)

Country.	Period, varies with Censal Periods.	United Kingdom.	German Empire.	France.
United Kingdom	Ten years, 1861-1871	– 1,138,000	...	...
Germany . . .	No figures available	...	No Record	...
France	No figures available	...	...	No Record
United Kingdom	Ten years, 1871-1881	–918,000	...	...
Germany . . .	Nine years, 1871-1880	...	–701,000	...
France	9½ years, 1872-1881	...	...	+461,000
United Kingdom	Ten years, 1881-1891	– 1,556,000	...	...
Germany . . .	Ten years, 1880-1890	...	– 1,310,000	...
France	Ten years, 1881-1891	...	...	+ 133,000
United Kingdom	Ten years, 1891-1901	– 576,000	...	...
Germany . . .	Ten years, 1890-1900	...	–354,000	...
France	Ten years, 1891-1901	...	...	+ 357,000
United Kingdom	No census since 1901	No Record	...	...
Germany . . .	Five years, 1900-1905	...	+ 52,000	...
France	Five years, 1901-1906	...	...	–35,000

increase of population is compared with the excess of births over deaths, in order to arrive at *net loss or gain by migration.* I give the facts in a new form on page 80, which is worth special attention. From Table E I arrive at the annual loss or gain by migration in the three countries in Table F, which now follows :—

F.—AVERAGE ANNUAL LOSS OR GAIN BY MIGRATION IN THE PERIODS NAMED

Period.	By U.K.	By Germany.	By France.
Nineteenth Century—			
In the 'sixties	- 114,000	No record	No record
In the 'seventies	- 92,000	- 78,000	+ 48,000
In the 'eighties	- 156,000	- 131,000	+ 13,000
In the 'nineties	- 58,000	- 35,000	+ 36,000
Twentieth Century—			
First Five Years	No record	+ 10,000	- 7,000

It is interesting to note that British emigration by this test is not so great as indicated in Table B. In the 'eighties, by the Census test, Table F, Britain lost 156,000 per annum by emigration, in the same period by the passenger test, Table B, Britain lost an average of 173,000 per annum. For the 'nineties, the Census test, Table F, gives an

annual average emigration of 58,000, while the passenger test, Table B, gives an average annual loss of 73,000. The variation is probably due, at least in part, to a balance of migrants into Britain from Europe.

Table F shows that in the 'seventies, 'eighties, and 'nineties, the British and German emigration figures proceeded almost *pari passu*. They rose together in the 'eighties, and fell together in the 'nineties. With the twentieth century, Germany shows gain by immigration, and although this test is not available for Britain because we have not a quinquennial census, we know that British emigration has risen considerably since 1899.

Those who are tempted to attribute the change in the German figures to tariff, should turn to the French figures. France, we see, which gained by immigration in the 'nineties as many people as Germany lost through the same cause, has, in the twentieth century, lost by migration almost as many people as Germany has thus gained. If tariff is the cause in Germany, is it also the cause in France?

Having reviewed the chief pertinent facts relating to British and foreign emigration, let us return to the special case of the United Kingdom. It demands our most serious attention.

We saw that Table B ends with rising British emigration figures, and the latest records available

as I send this book to press show that 1911 easily beat all former emigration records. In the first eleven months of the year the United Kingdom lost 263,000 British subjects by emigration, and the total loss for the year may prove to be 280,000 or more.

Is such a great drain likely to continue? To answer this question, let us first turn to the distribution of population in the British Empire. I give a near approximation to the facts of the case in the following table:—

G.—THE POPULATION OF THE BRITISH EMPIRE IN 1911

	Whites (Of all Races).	Others.	Total.
1. United Kingdom . .	45,000,000	—	45,000,000
2. Self-Governing Dominions:			
Canada	6,950,000	200,000	7,150,000
Newfoundland . .	250,000	—	250,000
Australia	4,400,000	100,000	4,500,000
New Zealand . . .	950,000	50,000	1,000,000
South Africa . . .	1,400,000	4,700,000	6,100,000
Total . . .	13,950,000	5,050,000	19,000,000
3. Other British Possessions:			
India	300,000	314,700,000	315,000,000
Rest of the Empire . .	250,000	34,750,000	35,000,000
Total . . .	550,000	349,450,000	350,000,000
Grand Total	59,500,000	354,500,000	414,000,000

This remarkable statement reminds us how few white men inhabit the Britains over the seas. In all the vast regions painted red on our maps there are less than 15,000,000 white people, and it is doubtful whether as many as 10,000,000 of these are of British race. With falling birth-rates, and death-rates too low to be susceptible of very great improvement, how are the self-governing dominions to be peopled?

Looking at the small figures which stand for British colonial white populations, we can understand the colonial emigration offices, and we must expect colonial efforts to attract our people to increase rather than to diminish.

Now let us turn from emigration to the vital statistics of the United Kingdom.

As I write, the statistics of births and deaths for the first nine months of 1911 are available. They show that in that period the "natural increase" of the United Kingdom—the excess of births over deaths—numbered 329,710. In the complete year 1911 there may have been a natural increase of 440,000.

As we lost about 280,000 emigrants in 1911, the increase of population, apart from the small gain of aliens from the continent of Europe, was only about 160,000 last year.

Natural increase depends upon two factors,

births and deaths. We have got the death-rate down to between 14 and 15 per 1000 per annum, but even while we have improved the death-rate, the birth-rate has also fallen. Let us see what has happened in the last quarter of a century in these respects :—

H. — BIRTHS, DEATHS, AND NATURAL INCREASE IN THE UNITED KINGDOM, 1885-1911

Year.	Births.		Deaths.		Natural Increase.	
	Number.	Rate per 1000.	Number.	Rate per 1000.	Number.	Rate per 1000.
1885	1,136,331	31.3	688,065	18.9	448,266	12.4
1895	1,154,898	29.4	735,244	18.7	419,654	10.7
1900	1,159,922	28.2	757,732	18.4	402,190	9.8
1905	1,163,535	27.1	669,638	15.6	493,897	11.5
1910	1,123,010	25.0	630,620	14.0	492,390	11.0
1911 (Estimate)	—	—	—	—	440,000	9.7

To deal first with the deaths, the fall has been great ; but, while hundreds of thousands of lives have thus been saved, there is an obvious limit to our efforts in this direction. We may by improved housing get down to the 9 per 1000 of Australasia, but it may take long to do that. And even if it is accomplished in ten or fifteen years, the birth-rate

shows every sign of accelerated fall. Observe that the fall in the five years 1905-1910 was 2.1, whereas in the five years 1900-1905 it was 1.1 And the fall has since proceeded. In the third quarter of 1911, the rate in England and Wales, 24.4 per 1000, was the lowest since civil registration first began.

Therefore, while we gained only about 440,000 people by natural increase in 1911, the lapse of a year or two may reduce that figure to 400,000, and in the same period emigration may increase to 400,000 or more.

In short, we are threatened not merely with stagnation, but with actual decline of population.

From the imperial point of view, as we have already seen, British emigration means a resettlement. But, with the central reservoir of population ceasing to be filled by new births, how is the Empire to hold together if the few whites of the Empire are to be distributed in groups over so wide an area? To take, say, another 10,000,000 people from the United Kingdom and to distribute them in Canada, Australia, and South Africa, would leave those dominions still small and weak communities, and it would so seriously weaken the Mother Country as to make her incapable of protecting her daughter nations. How could a mutual scheme of Imperial defence be arranged between 35,000,000 people in the British Isles,

12,000,000 in Canada, 8,000,000 away at the Antipodes, and 2,000,000 in South Africa? The United Kingdom, with 35,000,000 people, would find it increasingly difficult to sustain a sufficient navy out of her depleted resources. It would be next to impossible to obtain colonial contributions for a navy not tied to colonial shores. The land forces of these various units would also be weak because divided. Moreover, the eyes of Australia would not be on Europe but on Japan, and Canada also faces the Pacific and its great unsettled problems.

From the domestic point of view the considerations raised are not less serious.

The average age of the nation would be sensibly raised if emigration grew much more. It is the young and the vigorous, the best of our people, who for the most part fill the emigrant ships. We should be left with an increasing proportion of the weak and inefficient. That would mean not merely a diminished population, but a smaller individual output. A smaller and a less efficient people would find it necessary to provide for a larger number of old-age pensioners, and many other social problems would be aggravated. Land values would fall; every source of revenue would be less productive.

But let us suppose that the small gain of population of 1911 is maintained. It would give us by

1921 less than 47,000,000 people. The German Empire, although also faced by a falling birth-rate, is gaining on balance by migration, and her natural increase is still about 900,000 a year. It is hardly likely that Germany will put on fewer than 8,000,000 people in the next ten years. In 1921, then, Germany may have about 74,000,000 people against less than 47,000,000 in the United Kingdom. As things are going, we shall be fortunate if the comparison does not prove to be worse than this for the British people in 1921.

These are very grave considerations, and it is imperatively necessary that the attention of the public should be directed to them.

We have to ask ourselves: What attractions are we advertising to the citizens, and especially to the youthful citizens of our country? What have we to put against the alluring offers which are made to our young men by the daughter nations which are rapidly growing over the seas? It may be questioned by some whether we want to keep our population—whether anything but a vain pride would justify us in lifting a finger to stay a man in Yorkshire, or Surrey, or Devonshire, and to keep him from New Zealand, or British Columbia, or Saskatchewan. But there is no need to regard this country as either played out or wanting in resources to sustain in comfort and happiness a

population exceedingly greater than our present 45,000,000. It is largely a delusion that new countries are better than old ones, and as the United Kingdom possesses one of the greatest coal supplies in the world, it ought to hold its population by virtue of the greatest magnet for population known to economics. That men should go under present circumstances, I do not wonder; the wonder is that more do not go. That we can so organize our resources and our institutions as to retain through population our present position in the scale of nations, I do not doubt. There is a great deal to do, however, and, as is shown even in the case of the Insurance Act of 1911, vested interests are entrenched on every path to progress. A country the Parliament of which fears to face a vested interest in corpses, is not easily to be deflected from the path which it has chosen.

Many suggestions are made in this volume which, if carried into effect, would stay *undue* emigration. I venture to add a few words on the even graver issue.

There is no remedy for the fall in the birth-rate short of one for which society is not yet prepared, but to which it must eventually come or perish. Not until a good birth is regarded as the chief of the things that matter—not until we, in common with the other white races, realize that we must

continue to multiply or see world-mastery pass to inferior peoples—not until motherhood is not merely a subject for poetic rhapsody, but for prosaic endowment, will the nation gain the number and quality of births that it needs.

V

THE EMIGRATION OF CAPITAL

WE do not hear much nowadays about our old friend the "excess of imports," or "balance of trade," which cut a considerable figure in the opening years of the latest Protectionist agitation. Between 1903 and 1905 we apparently convinced the "Tariff Reformers" that the fact that our imports of goods and merchandise are larger than our exports of goods and merchandise does not mean that we are ruined, but that a part of our great and valuable imports are chiefly paid for (1) by the services of our magnificent mercantile marine, and (2) by interest due to this country on oversea investments.

The facts relating to our excess of imports are of great interest for their own sake, and recent variations in the amount of the balance of trade are worth study. In the following table the balance of trade is traced for a period of twenty-two years, beginning with a year of good trade and ending with a year of good trade :—

(A) HOW THE "BALANCE OF TRADE" HAS VARIED

(In millions of £)

	Imports.	Exports (British).	Exports of Imported Goods.	Total Exports.	Excess of Imports.
1890	421	263	65	328	93
1891	435	247	62	309	126
1892	424	227	64	291	133
1893	405	218	59	277	128
1894	408	216	58	274	134
1895	417	226	60	286	131
1896	442	240	56	296	146
1897	451	234	60	294	157
1898	470	233	61	294	176
1899	485	264	65	329	156
1900	523	291	63	354	169
1901	522	280	68	348	174
1902	528	283	66	349	179
1903	543	291	69	360	183
1904	551	301	70	371	180
1905	565	330	78	408	157
1906	608	376	85	461	147
1907	646	426	92	518	128
1908	593	377	80	457	136
1909	625	378	91	469	156
1910	678	431	104	535	143
1911	681	454	103	557	124

It will be observed that in the first nine or ten years of this period the excess of imports over exports increased considerably, reaching

£176,000,000 in 1898, and that this figure has since scarcely been exceeded. In 1902 the excess of imports reached £179,000,000, and in 1903 it touched record at £183,000,000. Since 1903 there has been a considerable falling off, and last year, 1911, the excess of imports was less than in 1891.

The late Sir Robert Giffen invented for our shipping earnings and interest receivable on oversea investments the convenient term "invisible exports." These invisible exports have been growing right through the period of twenty-two years examined in the above table. It is not at all surprising, therefore, that the excess of imports grew considerably down to 1903; for, year by year, quite apart from the imports brought in as payment for our exports of goods, we were earning an increasing mass of imports in payment for the services of our ships, and the interest due to us on British investments in foreign countries and British Possessions. (I neglect minor matters, such as our small excess of imports of gold, and miscellaneous invisible exports and invisible imports, which do not largely affect the matter one way or the other.)

Unfortunately, we cannot measure precisely what our ships earn, or precisely what income is receivable from oversea investments. The table on page 94, however, throws some light upon the matter of growth. It compares the balance of trade taken

(B) THE "BALANCE OF TRADE" (COL. 1) COMPARED WITH (2) BRITISH OCEAN TONNAGE AND (3) KNOWN INTEREST FROM FOREIGN INVESTMENTS

	(1) "Balance of Trade" million £.	(2) Ocean Tonnage millions of tons.	(3) Income from Oversea Investments million £.
1890	93	6.8	55
1891	126	7.0	55
1892	133	7·3	55
1893	128	7·4	55
1894	134	7.6	54
1895	131	7·7	55
1896	146	7.8	56
1897	157	7.8	57
1898	176	7.9	60
1899	156	8.0	60
1900	169	8.3	60
1901	174	8.4	63
1902	179	8.6	64
1903	183	8.9	66
1904	180	9.2	66
1905	157	9.4	74
1906	147	9.7	79
1907	128	10.1	85
1908	136	10.0	89
1909	156	9.8	93
1910	143	9.9	not known
1911	124	[1] 10.0	not known

[1] Estimated.

from Table A with the tonnage of our vessels employed in the foreign trade only, and that part of British income from foreign investments which is recognized and ear-marked as such by the Inland Revenue Commissioners.

Column 1 of this table is, of course, the last column of Table A.

Column 2 shows at a glance the growth of British shipping employed in foreign trade. It shows a continuous and almost unbroken rise. This means that year by year the imports receivable in this country as payment for the services of our ships have been increasing.

Column 3 shows the Inland Revenue Commissioners' record of interest due from oversea. The interest actually receivable is much more than this, but the Commissioners are only able to define certain parts of it. These known parts, it will be seen, have grown rapidly of late years, and there is little doubt that the unrecorded portion has grown as rapidly as that which is recorded.

A moment's thought will show that as our exports of goods have grown, and as our shipping services have grown, and as the amount of interest due to us from abroad has grown, it was to be expected that our excess of imports would also continuously grow. Why, then, did the excess of imports fall off after 1903, instead of continuing to increase?

The explanation is undoubtedly to be found in the large increase in our investments abroad in recent years. It is easy to show how large a figure these investments have now reached. Let us take the figures of 1911, and see what amount of imports was actually *due to and receivable by* this country last year. The record is as follows:—

BRITISH EXPORTS (VISIBLE AND INVISIBLE) in 1911

Visible Exports:	
Exports of British Produce .	£454,000,000
Exports of Imported Produce	103,000,000
Invisible Exports:	
Shipping Services (say) .	110,000,000
Capital Services	
(*i.e.*, Interest receivable) (say)	150,000,000
Total Exports . .	£817,000,000

This is a conservative estimate, for in putting interest receivable at £150,000,000 I have perhaps understated the case.

It will be seen that at least £817,000,000 worth of imports were *due to and receivable by* this country in 1911 as payment for (1) goods sent out and (2) services rendered to persons oversea.

What imports were actually received? Turn-

ing to the Board of Trade returns we find that, as shown in the first line of Table A, page 92, they amounted to £681,000,000 in 1911. We therefore get :—

Imports due to us as payment for our exports in 1911 (say)	£817,000,000
Imports actually made	681,000,000
Balance not brought in	£136,000,000

That is to say, at least £136,000,000 worth of imports which in 1911 were due and payable to this country were not actually imported. They were left abroad by those to whom they were due as an addition to "our" (it is always comforting to use the possessive pronoun in this matter) oversea investments. There is no doubt that, in addition, part of our exports of goods of £454,000,000 also went abroad last year to swell our oversea investments.

Thus, the British lien upon the world, or to speak more accurately, the lien upon the world of a limited number of British investors, is growing with great rapidity. Out of the abundance of their capital savings our wealthy classes are developing the "new" lands over the seas for the good of the world, for the profit of themselves, and incidentally for the profit—at least in some part—of their country. I am not satisfied, how-

ever, that they are doing all their duty in the direct development of their own country.

Indeed, it is questionable whether a point has not been reached in the migration of capital from the United Kingdom which is menacing to the welfare of the people whose labour creates capital. The considerations which arise are not dissimilar to those with which we were concerned in connection with the swelling tide of the emigration of men.

Up to a certain point it is good alike for the world and for themselves for "old" countries to export capital to "new" ones. Britain needs food and materials from America and Africa, and she helps herself when she helps the exploiters of virgin resources to feed her people and her factories. As in the case of emigration, it is all a matter of degree and proportion. We can afford to export both surplus men and surplus capital; it is equally true that we cannot afford to reduce our population directly by emigrating too many people or indirectly by emigrating too much capital.

According to Mr George Paish, who has very carefully analysed British investments oversea, we had at the end of 1910 as much as £3,192,000,000 invested in the world outside the United Kingdom. The following statement shows in what parts of the Empire and in what foreign countries this enormous sum has been invested:—

THE UNITED KINGDOM'S CAPITAL INVESTMENTS OVERSEA, 1910

In the British Empire:	
North America	£372,500,000
Australasia	380,000,000
Africa	380,800,000
India	365,400,000
Other Asian Possessions	30,300,000
Other British Possessions	25,000,000
Total British Possessions	£1,554,000,000
In Foreign Countries:	
United States	688,100,000
Argentina	269,800,000
Other Parts of Latin America	340,600,000
Asian Countries	105,000,000
Europe	150,000,000
African Countries	84,200,000
Total Foreign Countries	£1,637,700,000
All the World	£3,191,700,000

As nearly as possible one-half of the British capital which has left these shores has gone to places within the British Empire. Apart from

British Possessions, "new" foreign lands, it will be seen, have taken by far the greater part of it.

The United States has £688,000,000; the Latin Americas have £610,000,000; Africa has £84,000,000.

Thus British capital is drawn, as British people are drawn, by the superior advantages offered by new lands in the stages of primary development. And the United Kingdom has to face, in the one respect as in the other, the special call of an extensive colonial Empire.

There is but one consideration for the average investor, and that is to get as great a yield of interest as is consistent with the security of capital. Scotland has water power and so has Brazil; Scotland cannot pay as great a rate of interest as Brazil; therefore Brazil gets the capital and the developed power. England needs more railways and so does Canada; England can pay but 4 to 5 per cent. where Canada offers 5 to 6 per cent.; therefore Canada gets the capital and the new means of communication.

And with the capital men must go. The people who might be employed by the excellent water powers of Scotland (which are superior to those of Switzerland) must follow the emigrating capital to

some new land. The people who might be building new houses for British folk must follow the capital to Winnipeg, or to where, under the Southern Cross, a new capital is to be founded for an advancing Australia.

Time was when the hunger for a higher rate of interest found a check in the fear of crashes and repudiations. Canada was not believed in; Australasia was thought of doubtful honesty; the Latin Americas were ebullient hordes of nondescript ruffians; the innocent investor was scared from good things by a number of unfortunate experiences. Within the last decade confidence has revived; the British investor, like a new Columbus, has discovered South America, and South America has had hundreds of millions. "New" lands have discovered, in their turn, the artful uses of advertisement, and the investors of old lands have been tempted as never before to send their money over the seas. The offers of fat interest to the British investor by Colonial and South American Governments have rivalled the offers of fertile acres and plentiful wages to the British labourer and artisan. The master has gaily sent his capital, while the man, not so gaily, has conveyed himself.

Such are the consequences of committing the

development of the nation to non-national, non-moral, private irresponsible powers. Those who rule our Empire could, if they cared, develop Scotland and Surrey no less because they had eyes also for the ends of the earth. If they cared . . . . .

VI

OUR CHIEF INDUSTRY

WHICH is the greatest British industry? If we are to believe the British Census (of 1901, observe, for we cannot afford to take stock of our people more frequently than once in ten years) it is agriculture, which employs over 2,000,000 persons in the United Kingdom. Agriculture takes a long lead of building, with its 1,200,000 workers, the metal trades, with their 1,500,000 workers, the textile trades, with their 1,300,000 workers, or mining, with its 950,000 workers. But there is a greater industry than agriculture, and it does not appear in the census returns. It is the manufacture of rubbish.

A separate department of every other trade, and often the largest department, is consecrated to the rubbish industry. There are silks and rubbish silks, houses and rubbish houses, cloths and rubbish cloths, jewellery and rubbish jewellery, pianofortes and rubbish pianofortes, furniture and rubbish furniture. One might go further and point out that there are peas and rubbish peas,

and gooseberries and rubbish gooseberries. For but an exceedingly small proportion of our growers of fruit or vegetables raise food of good quality.

In nearly every trade the rubbish has it by a big majority. And for a simple reason. Of our entire population only one person in twelve or so has sufficient means to command fair to good quality in the purchase of the great variety of articles which modern society breeds hunger for. We all want, and think we need, to clothe our bodies in many garments, fearfully and wonderfully made. A few of us deny the need, but have not the courage to defy convention. The clerk, earning his thirty shillings a week, deems it necessary to put on every morning some twelve to twenty articles of clothing. He could be warm, comfortable, even beautiful, in four or five, but no, the regulation garments he must have. Now, on thirty shillings it becomes necessary to purchase twelve to twenty pieces of rubbish. Shoddy cloth, half-cotton underwear, weighted leather, are built into various stove-pipe formations to furnish forth a man.

Far be it from me to attempt to enumerate the articles which go to the fashionable decoration of the modern woman. I merely advance the general proposition that every article, large or small,

which enters into the upholstering of the dame of Mayfair is duplicated in rubbish for the great majority. There was a time when fashions "passed on" to the poor, the latter being always a move behind. Not so to-day. You can always find the latest modes in "Home Twitters" and the cheap emporium.

The home of small means unfortunately betrays the same regard for convention, and, as a certain consequence, the same devotion to the rubbish trade. The poor man buys not a few good articles, but many pieces of rubbish. Instead of putting solid stuff into one comfortable room, he must pay respect to the "drawing room" with which a thoughtful rubbish builder has provided him. The conventional rubbish house calls for conventional rubbish "suites," for rubbish pictures in rubbish frames, and for rubbish ornaments. And what is home without a rubbish piano? I confess I have been on many occasions moved to anger by the ugly boxes of wire, wood and felt sold at apparently "low" but really extravagant prices to poor people by the money-lenders who, masquerading as "dealers on the hire-system," lend, not honest money, but a far cheaper commodity.

We are bred in a complex society to desire to be surrounded by certain accustomed forms. If

we are rich we call for them in the real. If we are poor we call for them in the sham. The small income must be split up to cover such a variety of wants that only rubbish can be had to fill them.

And, since half the income of the country is taken by but one-ninth of its people, the call for rubbish is much greater than the call for quality. Every trade finds itself compelled to produce many pieces of dear rubbish to one piece of the cheap best.

I know of no sadder economic consideration than that a man or woman should work hard to make rubbish for a small wage, and then go to market to barter that wage for other rubbish made by other hardworking hands which have also laboured for a small wage.

Even in the West End shops an appalling quantity of rubbish is sold. Not long ago I saw a window in a leading thoroughfare filled with rubbish pictures in imitation frames. In sober truth there was not one amongst them which did not call for instant destruction. They were just so much spoiled material. That is true of a great part of the contents of British "ornament" shops:

There is a long street which, for my own satisfaction, I have renamed "Rubbish Street." You may vainly examine the contents of almost its every shop for anything but rubbish.

Here is the furniture store. It bears the legend "As advertised." The hall-mark, this, of good-faith. The extensive windows gleam with sticky-looking furniture. Here is the "saddlebag" suite, as advertised £5, 19s. 6d. Not six pounds, but £5, 19s. 6d., on our genuine hire system, and you can have it sent home on payment of the first instalment. Here is the bedroom suite in gummy yellow ochre, with real tiles in the washstand and a bit of real copper in the wardrobe. Here are the startling carpets, all in one piece, and here, again, the marvellous linoleum.

Rubbish, all rubbish—all ugly rubbish.

A few doors away the china and glass shop. It would be easy to get humour out of the show, were it not so pitiful. This noble ancient art of the potter, degraded by men who know nothing of line and less of colour. How is it to be explained? Who designs these awful objects, and who is mad enough to make moulds after such designs? Have we no public museums where can be copied, if a man has no gifts of his own, the supreme achievements of the greatest potters of all time?

Pass to the cheap drapers'. Poor women throng the windows, gazing at the mournful productions of other poor women. Here are the brilliant sun-shades, complete, handle, stick, frame, covering, and tassel, for 2s. 11¾d. Sweating, of course. Here

are the vile imitation furs, for which of us cannot afford to waste our money on imitation fur? Is it "white fox" that they wear at the moment in the Society to which, as Mrs Asquith has told us, extravagance is a passport? Then here is a white muff and neck-piece, which, at a distance of half a mile, can easily be mistaken for white fox. Here are the trashy stuffs which for a few brief days may contrive to appear something like what they are not. "The latest stripe." And in goes the working girl to spend her strength for nought and in vain.

I hate Rubbish Street. I hate it when on Saturday it is thronged with the rubbish buyers. I hate it even more on Sunday, when its shops are shut, and the only bright spot in a thoroughfare without shape and void, is the Palace of Pleasure, where for a penny you can be tickled with the latest pictures from Paris. It is fitting that on Sunday rubbish in amusement should be freely on sale in Rubbish Street.

VII

THE BREAKING OF A MAN

IN the year 1906 his late Majesty's faithful Commons amended and consolidated, with the best possible intentions, the law relating to Workmen's Compensation.

The Act runs: "If in any employment personal injury by accident arising out of and in the course of employment is caused to a workman, his employer shall be liable to pay compensation," and "where total or partial incapacity for work results from the injury, a weekly payment during the incapacity not exceeding 50 per cent. of his average weekly earnings during the previous twelve months" shall be paid by the employer.

The following plain account of actual occurrences (I have altered the names of the parties concerned) will show how easily a carriage and four can be driven through this Act of Parliament.

* * * * * *

On 30 July, 1908, Ben Burrage, who had then reached the age of 52, was engaged in his

customary occupation of iron founding, and had his left eye cut open by a chip of metal struck by a fellow-workman from a casting under examination. The injury was so serious that the eye had to be removed on 11 August, 1908.

The firm of iron-founders who employed Ben Burrage were insured against their risks under the Workmen's Compensation Act. They admitted their liability, and the insurance company began to pay Burrage a weekly compensation of 17s. 7d., which they alleged to be one-half of his average earnings—£1, 15s. 2d. per week. As a matter of fact, Burrage's average earnings were 38s. 6d. per week; the 35s. 2d. was quite improperly arrived at on the average of a period of short time. I do not dwell upon that point, for, as will presently be seen, it proved to be the least of the aggravations added to Ben Burrage's injuries.

On 15 October, 1908, the insurance company wrote to Ben Burrage's solicitors, saying that their medical officer reported the man to be "quite fit to resume work," and that his employers "would be glad to have your client back at work."

Upon this an independent medical man, Dr Black, after carefully examining him, reported on 18 October that "he ought not to attempt work in his present condition." It was then agreed that Burrage should be examined by a specialist in-

structed by the insurance company. This specialist, Dr White, reported on 26 October that Burrage "is able at any time to resume employment."

Now Burrage was a fine or "particular" iron-moulder, an occupation demanding good sight. Moreover, a moulder, whether "particular" or other, has constantly to carry molten metal, and the reader can decide for himself whether it is advisable, for his own safety or for that of others, for a man who cannot see on both sides of him to carry, through the shade and dust and steam of a moulding shop, a ladle containing about 28 lb. of molten metal. Burrage's solicitors agreed with Burrage and with Dr Black that he was unfit, and declined to consent to his resuming work.

On 15 January, 1909, the insurance company applied to the B—— County Court for a reduction of the compensation. The judge adjourned the case until 12 March, to enable the workman to find out by experiment if he was fit for work, and Burrage accordingly made the experiment.

His employers did not care to put him back on his old work. He was not allowed, very naturally, to carry molten metal, and he was given work of a character commonly reserved for apprentice lads. Even this he was unable to do satisfactorily.

Nevertheless, when the case was resumed in the —— County Court, on 12 March, 1909, the

judge arrived at a decision which I had better give in his own words :—

"In this case the workman lost his left eye in consequence of an accident on 30th July, 1908. At the present moment the hollow of his left eye is healthy, and so far as can be seen the right eye will not be injuriously affected.

"He returned to work about the middle of January, 1909, but the work he did was not nearly as good as he did before the accident. This appears to me to have been partly due to his not having become accustomed to working with one eye and partly to his not having used spectacles. The evidence of Dr Black is that if he used spectacles his vision would be normal, but he would still have difficulty in estimating distances and depths. The evidence of Dr White is that a period of three months should be sufficient to enable a person after the loss of an eye to judge distances and depths.

"But I do not think that he is at the present time quite as well able to work as he was, and therefore I think that the award should be that the weekly payment should be reduced to 4s. The accident happened about a year ago, and having regard to the evidence as to the time required to get accustomed to monocular vision, and to evidence of moulders working who have

lost one eye, I have made this award in the belief that in a comparatively short time Burrage will be able to earn the same wages as he did before the accident."

Thus the Judge, in spite of the facts which I have related, reduced the Workmen's Compensation Act to a farce by awarding 4s. a week for the loss of an eye to a man who had earned 38s. 6d. a week, leaving Burrage with one eye to earn the balance of 34s. 6d. a week if he could.

Observe that the Judge had so imperfect a view of the facts as to state "the accident happened about a year ago," when the interval between 30 July, 1908, and the date of the Judge's remark, 12 March, 1909, was seven months and twelve days. He ignored the fact that an iron-founder must carry molten metal and that his employer had very wisely not allowed him to do so on his resumption—a clear recognition of a clear case of incapacity. He ignored the fact that Burrage was a "fine" moulder, to whom good sight and binocular vision to enable proper judgment of depth and distance is a prime necessity. He appeared to think that a man of fifty-two years of age, with only one eye, assisted by spectacles, could earn full or almost full wages in competition with young men of normal vision. Indeed, so blind do County Court Judges appear to be as to the

incapacity produced by the loss of an eye, that I almost expect to hear one of them declare that Nature has been too lavish in the matter of eyes, and that Evolution proved herself an ass in evolving two eyes.

As I need hardly point out, Burrage had by this time incurred very heavy law costs through his adventures under our thoughtful Workmen's Compensation Act. I have the brief for Burrage before me. It is marked five guineas, plus one guinea for conference, total six guineas. And apart from learned counsel the costs were considerable. And, of course, by losing the action he became liable for the costs of the insurance company also.

Burrage went back to work with his 4s. a week and his unpaid legal liabilities. I need not dwell upon his feelings; the least imaginative of men will not find much difficulty in putting themselves in his place. It will also be self-evident to the reader that this unhappy man did not on his resumption find things made very comfortable for him, for man is so constituted that he can more easily forgive a wrong which is done him than he can be kind to one he has injured. Burrage had to leave the works where he lost his eye, and he has since been unable to find employment.

In October, 1909, the insurance company began to threaten Ben Burrage. They told him they

would apply to the Court to have his handsome 4s. reduced to *nil*, and to enforce payment of that little bill of costs in the action which they won in March. They accompanied this threat with a munificent offer. If Burrage would sign a complete discharge from all further claim, they would waive their costs, pay him £20 down, and pay also the further sum of ten guineas towards his own bill of legal costs.

I should like to tell the rest, not in my own words, but in those of Burrage's solicitors, who put me in possession of the facts :—

"*The workman, to save his home, and in complete disgust with the law, accepted. The workman has not since been able to find employment, and is in poverty.*"

He is now fifty-six years of age; he began work at nine; we have no further use for him.

* * * * * *

There is a very plain moral to this story.

When Parliament sets up by law, in any connection, liability on the part of any group of persons to find monetary payments at uncertain intervals, and in uncertain amounts, the persons upon whom such liability is cast are compelled to protect themselves by insuring against the liability cast upon them.

When Parliament, therefore, passed the Work-

men's Compensation Act, it invoked a new class of insurance business. Insurance companies already existing, and others called into existence *ad hoc*, quoted to employers rates of premium to cover their entire liability. At the present moment the greater part of the legal risks of employers' liability have been transferred to various insurance companies.

Thus Parliament, which refused seriously to consider the establishment of a workmen's insurance scheme, has, in effect, *created the thing indirectly which it refused to create directly.*

But—and it is a very big but indeed—the insurance scheme which has been set up indirectly is clumsy, unjust, ineffective, and costly, whereas the German State insurance scheme is simple, just, effective, and cheap.

Nationally we have set up a great and far-reaching liability, and then have washed our hands of the matter. The result is a scramble of a most unhappy character, in which honest men are often deprived of their rights, professional men set to unworthy tasks, a class of officials created who have the vices of State officials without their virtues, and much worse than wasted work is made for the legal profession and our courts of law.

In the first place, a considerable proportion of

injured workmen never even claim their rights under the law. I know a case where a man was partly incapacitated for life a year or two ago, but who never made a claim. I am not sure—although I was one of the Grand Committee who thrashed out the law in detail—if he could now claim. I take it the Judge would probably decide that his neglect was not "reasonable," and therefore I should hesitate to advise the man to beg or borrow money to go to law with.

The Board of Trade recently printed circulars, advising men how they stand under the law, for distribution by Trade Unions. But we have only 2,000,000 Trade Unionists, so that the circulars will only reach a fraction of the men concerned. The law we made in 1906 is necessarily complicated, and I, who helped to make the law, always take care to look it up before I dare define liability under it. How, then, is an injured agricultural labourer, or the widow of a deceased builders' labourer, to be expected to know where he or she stands?

A certain number of small employers neglect to insure themselves, so that the law in regard to them is a dead letter, since if a fatal accident happens in their employ, the injured servant has been provided merely with redress against a man of straw.

And what is the position of the man who knows

his legal rights, and who applies for the compensation which the law has so thoughtfully provided?

Such a man finds himself up against an insurance company—a body composed of excellent individuals who, doubtless, are kind husbands and good fathers, but an institution, nevertheless, which, considered as a corporation, has neither a body to be kicked nor a soul to be saved. It is obviously the business of an insurance company to refine the law as near to vanishing point as possible. The premium has been paid by the employer, and the legal liability has been transferred from the employer to the unkickable and unsavable corporation. Then the game begins and the man gets his rights—if he can. The insurance company has its tame medical officers. I have a very deep and sincere respect for medical men, and it is because of that respect that I protest against the degradation of a glorious and honourable profession which is involved in making a medical man the paid servant of an insurance company whose business it is to pay as little in compensation as it possibly can.

The medical profession, as a whole, is badly underpaid, and good posts in connection with it are rare. It is deplorable that a medical man of character and ability should be subjected to the constant strain of examining workmen with the bias in his mind which is created by the payment

of one of the few good salaries which the profession offers.

Think of the position. The case is one, let us say, in which the issue involved is how much a week is to be paid for life by an insurance company to a partially incapacitated workman. A difference of 5s. a week for twenty years means a payment of £260 more or less by the insurance company, apart from interest saved. The insurance company's doctor has got to appear in court and give evidence. Unless he can make out a good case for the insurance company his job is in danger, for it is an overstocked and underpaid profession. Let every reader of these lines search his heart very carefully as to his own strength of character before he decides that he is quite sure that, if he were an insurance company's doctor, thus situated, his version of the truth would not be coloured by his "duty" to the insurance company.

A favourite method adopted by insurance companies for depriving a man of what is due to him under the law, is to tempt him to settle for a lump sum down. There must be thousands of cases every year in which workmen, or the widows of workmen, are tempted, by sums which represent a fraction of what they would probably receive if they waited, to barter away their legal position. With, on the one side, an ill-educated, ill-informed work-

man, and on the other side a very well-informed company, expert in reducing costs to a minimum, what is to be expected?

Then there is the case of the ageing workman. An insurance company cannot be blamed if it demands either that certain workmen shall not be employed, or in the alternative a very heavy premium for insuring them. Through such action the ageing workman finds himself increasingly unable to obtain employment, and the kindness of the law becomes to him a cruel injustice.

I hope I have said nothing which can be interpreted as a special reflection upon the men engaged in such insurance work. They are, of course, no better and no worse than the rest of us. It is the system which is to blame, and if we not merely consent to the system, but make laws which compel the existence of the system, it is Parliament which must be blamed when an insurance company's obvious interest works to that obvious interest's natural consummation.

Why not end the system? As things are, the insurance companies do not, I believe, find the business a very fat one; the employers find the premiums heavy; and the workmen are often denied what the law seeks to give them. The insurance companies find the risks difficult to measure, as their constant revision of rates shows.

The employers find the premiums heavy, because there is a tremendous amount of waste in the work of so many private insurance offices, each competing with the other, each with its separate offices, and advertisements, and tame doctors, and persuasive "settlers," and lawyers, and clerks. The employee is not clear as to his rights, or if he is, is often compelled to risk large legal expenses in order to secure them.

Under a system of State insurance against injury through accident, the employers would pay to the insurance fund just such a premium as would be necessary to cover the benefits created by the law. They would not have to pay in their premiums large unnecessary sums in order to enable competitive insurance offices to carry on their wasteful work. The officials of the fund would have no interest but to see that justice was done, for their salaries would not be more or less, nor would their situations be in danger, because they spoke what they knew to be the truth about any particular case. Doctors would still be wanted, but the doctor examining on behalf of the public authority would have no temptation but to speak the truth, the whole truth, and nothing but the truth. The workman, being compulsorily insured by the employer, would not fail to get his compensation, whether or not he was ignorant of the law.

Finally, accidents would be *prevented*, as in Germany, for when employers mutually insure themselves under the law, as in Germany, they themselves take care to reduce their costs by making their workplaces safe and by making common rules of safety in each industry.

VIII

ONE SHOP FOR BOTTLES

THE attempted reconciliation of the opposing interests which furnish us with the necessaries of life is an exceedingly interesting process. Here is a jar full of jam. It cost at the shop, let us say, sixpence. It is a commonplace object, but the sharing up of the purchaser's sixpence amongst all the interests which had a finger in putting it at the disposal of the purchaser furnishes a subject for consideration which is exceedingly recondite, and which has been very imperfectly studied by economists. Fruit grower, sugar refiner, glass jar maker, paper maker, string maker, printer, colour maker, and designer, amongst producers, and merchants, agents, travellers, advertisement agents, railway companies, carriers, tradesmen, and clerks, amongst distributors, share up the sixpence by virtue of infinitely complicated, and, indeed, unnecessarily complicated, processes, which means that a very large part of the labour of those who get the sixpence goes to waste. We get a

penn'orth of jam, or less, for sixpence, because of internecine industrial feuds.

On the face of it, each of the producers and distributors is engaged in the thoughtful and kindly process of placing jam at the disposal of a public which needs jam. In ultimate analysis, each of the many producers and distributors is doing all that he possibly can to prevent the public from obtaining jam.

I have instanced jam, because I wanted in the first place to talk about bottles, and the case of the bottle trade neatly illustrates the conflict of interests which is the essence of our industrial operations, and which, through the principle of "holding up" which is the sorry foundation of trade as we know it, reduces production to a mere fraction of what it ought to be, and makes scarce products which we all need.

Probably few readers of these lines ever bought a bottle; I hasten to add that I mean an empty bottle. What the public buys is jam, or pickles, or mineral water, or beer, or whisky. The bottle buyer is himself a manufacturer, and in the trades which are compelled by their nature to use bottles the cost of bottles is a very serious item. There is no effective substitute for bottles, and the bottle user is dependent on the bottle maker for the essential means of putting out his wares. Here,

of course, is a glorious chance for the bottle maker. If he can hold up his bottles against the bottle user, he can have a very good time, for the bottle user, in the words of Coventry Patmore, "cannot choose but pay."

In the old days the holding up of bottles was not easy of accomplishment. A bottle is the simplest and most obvious thing you can possibly make out of glass, and before the advent of machinery a bottle combine was out of the question.

To-day we have changed all that. Machines have entered the glass trade, and the prices of bottles have fallen. The fall has not, of course, suited the bottle makers. Your commercial interest cannot be expected to view with joy the arrival of processes which, while they are good for the public at large, bring no good, at least in the interim, to those whose business in life it is to sell as few bottles as possible in return for as much as possible. Nor, may it be added, can a glass blower, in an unorganized society which offers pauperism as the only means of maintenance between the loss of an old trade and the gain of a new one, be expected to welcome the gift of unemployment at the hands of the inventor of a bottle-making machine.

The very machine processes which cause the prices of bottles to fall furnish the means of com-

bination to the capitalist, since machinery can only be run by big masters, and we need not be surprised if combination is availed of.

The bottles of civilization are now largely controlled by combinations. There is a British bottle combine, consisting of the majority of the chief firms in the trade. There is also a Continental bottle combine, with which the British combine has relations. The object of the combine is to regulate the output and maintain price in spite of improvements in machinery.

Fortunately for the bottle users, a number of British bottle manufacturers for some time refused to come into the combine, but I do not know if any independent firms will be able to hold out. The combination, I understand, has already used very strong pressure. One of the independent firms informed me in the spring of 1910 that "the combine has several times approached the outside firms with the idea of persuading them to join, and owing to their refusal have twice reduced prices to compel them to either lose money, shut down, or join the combine."

Whilst fighting the outside firms, the combine has gone the length of endeavouring to suppress invention—an act which is only comparable to the attacks of organized gangs of workmen upon the first machines invented.

It appears that some clever person has invented a machine able to produce bottles at about half their previous cost. The combine, it seems, bought up the British patent rights in the machine, in order that bottle prices should not be broken by the new method. At first sight it would appear that such action would be impossible under the Lloyd George patent law, for, as is well known, if under that law a British patent is not worked here it may be rescinded. I take it that the object of the combine is not to suppress the working of the patent, but to suppress the fruitfulness of the working of the patent, which is another matter. That is to say, by gaining control of the American process, and by making an arrangement with the Continental glass combine in restriction of commerce, they can, while actually working the patent, work it free of competition, and thus, while retaining the validity of the patent, actually deny to British bottle users the low prices which the patent would naturally produce.

So we see one of the most useful of the subsidiary trades warring against the industries of which it ought to be a servant. We see it not so much as a supplier of bottles as a withholder of bottles. We have illustrated the conflict of interests which denies to the world at large the fruitfulness of man's labour and invention. We

have the essential raw materials of many important trades rendered artificially scarce by a process which is perfectly legal, but which is decidedly anti-social and injurious to the general welfare of the country.

If the combine succeeds in all its aims, and the independent firms are defeated and compelled to give in, the position will be this. There will be, for practical purposes, one shop for bottles in the United Kingdom, and that shop the bottle combine, which will be in a position absolutely to rule output and prices. Every man or woman who buys bottled wares, all the trades which are compelled to use bottles, will become tributary to the combine, and that means, of course, that practically every member of the public will become tributary to the combine. There will be set up, in effect, a bottle tax, levied, not by the Government, but by a private board of directors. If the combine had been empowered by statute to issue to bottle buyers a demand note asking for a definite contribution in pounds, shillings, and pence, the tax would not be a more real one. It would only be apparent where it is now hidden.

Under such circumstances Free Trade in bottles will cease to exist, because the remedy of free imports will have been destroyed by agreement between the British bottle combine and the Continental bottle combine. Such varieties of bottles as

the British bottle combine decided not to make, or was for reasons connected with material compelled to leave to Continental manufacturers, would be imported, but would not be imported under Free Trade conditions, because the Continental prices, like the British prices, would be artificial, and made by arrangement between the British and Continental boards of control.

Or we may put it in another way. The combine would be in precisely the position of a public monopoly carried on for taxing purposes. The French match industry is such a monopoly. It is a Government department which is used as an instrument of taxation, and it is run more for the sake of taxing than for the sake of producing good matches. It is neither Individualism nor Socialism; it has the vices of both and the virtues of neither. Competition is eliminated, and there is not put in its place any desire or incentive to produce a good article. Taxing becomes the sole motive.

A friend of mine, the head of a large firm of bottle buyers, gave me in 1910 details of how he met the combination. He found the bottles which he had been buying for some years at something like 12s. a gross advanced by the combine to 17s. 6d. a gross. Being favourably situated with regard to land and water carriage,

having some vacant land, and being near to coal, he decided to build and equip a glass works of his own. He knew nothing about bottle making, but he took the risk, and has now, for a considerable time, been producing bottles at quite a satisfactory cost (so simple often are the secrets of business). As a result, my friend told me, the combine knocked 2s. a gross off their maintained price—"they never believed we should succeed, and when they came and saw the quality of the bottles we were producing they took fright and announced the reduction to prevent others following our example." The combination's price has since been further reduced to 14s. 6d. in order to prevent recourse to the same remedy, and so my friend says: "Our experiment has not only saved our own skins, but has been of much advantage to bottle consumers in general." It has, however, to be remembered that this firm is in a position of economic advantage in establishing a glass works for the reasons I have indicated.

The artificial control of prices is a marked and rapidly growing feature of modern industry in many branches of trade. It grows with the control of machine production by an ever-decreasing number of industrial captains. With a trade in the hands of thousands, or even hundreds, of small producers, a man who wants to buy can

obtain the quotation of fair prices. When the thousands or hundreds of producers have been whittled down to twenty, or ten, or even six, the buyer finds himself fronted with price by agreement.

Let us suppose, to give a case, that the reader desires to buy a ——. He sends for price lists, or makes inquiries at the ironmonger's shop. He finds that there are three well-known big makers of ——, and he can take his choice. He finds that the prices are as follows :—

CURRENT PRICES OF ——

Size.	Hobbs & Co.			Nobbs & Co.		Blobbs & Co.		
	£	s.	d.	s.	d.	£	s.	d.
10-inch	3	6	0	66	0	3	6	0
12-inch	4	3	0	83	0	4	3	0
14-inch	5	2	0	102	0	5	2	0
16-inch	5	19	0	119	0	5	19	0

And so on, right through the range of sizes up to the largest made. Further, if the reader desires to buy a cheaper kind of ——, he finds that Hobbs & Co., Nobbs & Co., and Blobbs & Co. are each and severally able to oblige with an ideal product at exactly the same figure. It is exactly like the uniform prices of the various railway companies which serve Manchester or Jersey.

In the example quoted I have given the figures

of an actual recent case, but have made slight alterations in the names of the firms concerned in order not to hold up to obloquy individuals who are only following a very common practice.

We are not to suppose that Hobbs, Nobbs, and Blobbs arrived at the prices quoted through inspiration. The fact of the case is that some years ago, after merrily competing with each other at all sorts of prices to the great advantage of the public, Hobbs, Nobbs, and Blobbs said to each other, "Behold, we are wasting our gains in beating down each other's prices. It is an interesting occupation, but it does not pay. Let us shake hands, and take it out of the public instead." And so, joining hands, they made a gallant onslaught upon the public.

But, it may be asked, how do these firms prevent the retail ironmongers from beating each other down within the limits of the wholesale discount? That is done by controlling the ironmongers by common agreement. The retailers are only supplied upon strict agreement that the machines are not to be sold for less than a certain figure.

Here is another even more interesting and significant current instance. It relates to one of those methods of spoiling good paper which give innocent pleasure to millions. I take the following list of prices from a dealer's current catalogue :

AMATEURS' SPOILING PAPER

Make.	Per Gross.		
	Size A.	Size B.	Size C.
	s. d.	*s. d.*	*s. d.*
A. & Co. "Best of All"	1 8	1 10	4 8
B. & Co. "Unequalled"	1 8	1 10	4 8
C. & Co. "Nonpareil"	1 8	1 10	4 8
D. & Co. "Unrivalled"	1 8	1 10	4 8
E. & Co. "Matchless"	1 8	1 10	4 8
F. & Co. "Licks Creation." (This is an American make)	1 8	1 10	4 8

The remarkable thing about this list is not merely that the six leading suppliers have put their heads together to hold up their stuff against the public, but that firm F., one of the biggest in the trade, is an American firm. Instead of cutting in upon its British rivals, it finds it pays better to make a price agreement with them.

It may be asked, "Why does not a new firm undercut these prices?" The answer is that the number of people technically capable of starting is very small, and few of those technically equipped can command the necessary capital. Further, given a man both technically equipped and with capital, the established firms, by wielding their powers of agreement, could make things go very

hard with him. Many trades can now be named which, without an abundant supply of capital, it would be foolhardy to attempt to enter.

The arrangement and holding up of price has assumed in some directions an international aspect. The International Rail Pool is a case in point. Broadly it amounts to this : The steel rail makers of the entire world are few, and chiefly found in three countries. They have arrived at an agreement for the delimitation of markets and the arrangement of price. For all practical purposes competition has ceased to exist. The world's demand for steel rails, one of the most necessary and important of commodities, is answered by what is, in effect, a single group of producers, who dole out the chief metal in such manner as seems good to them.

Another instance of a similar character is afforded by the cement trade. The cement supply of Holland is kindly regulated by an international group of producers, who have a sales office at Rotterdam. So Holland becomes dependent for an important commodity upon persons whose desire it is to wring the last farthing out of her by the arrangement of artificial prices.

It is surely time, first, that the public awoke to the realities of domestic international combination and the building up of private States within the

State, and, second, that the combines themselves began to reflect upon the ridiculous fallacy of maintaining high prices. It is all very well for one combine to arrange an artificial price for bottles, and, in effect, to create a bottle tax. The monopolist must remember, however, that combine answers unto combine, and that those who sell must also buy. If Smith, by combination, becomes enabled to charge Brown £10 instead of £5 for his product, what does Smith gain if Brown, by combination, is also enabled to charge Smith £10 instead of £5 for what Smith has to buy from Brown? That is the sort of position that is arising. The grocer sells a price-maintained bottle of syrup to the ironmonger, and the ironmonger sells a price-maintained mowing machine to the grocer; in essence they are both doing a stupid thing, while flattering themselves they are being very clever.

The only possible result of price maintenance is to restrict output, limit consumption, and decrease wealth. *The object of economic work is to produce plentifulness, and plentifulness is merely another word for cheapness.* To limit the output of a machine by charging an artificial price for its products is economically the same thing as to cancel part of the effectiveness of the machine. *The men who, throughout industry to-day, are combining to*

maintain prices are doing precisely the same sort of work as the gang of masked men who, in the early days of industry, broke up machinery in order, as they thought, to prevent unemployment.

I do not desire to be understood as condemning combination *per se*. There can be no possible doubt whatever that, *e.g.*, the bottle trade, or for that matter the whole glass trade, is a relatively small department of the national activities, which could be carried on by a single control with great facility. The entire business, under such circumstances, would be quite a one-horse affair, for the total quantity of glass required even by a large population is not very great. Given such single control and adequate capital and glass could be produced economically, without waste, and by the best possible methods. Given the motive of manufacturing in order to produce glass of the greatest possible intrinsic utility, and the product of such a combination would be so good and plentiful—*i.e. cheap*—that no one would lack glass. But given monopoly actuated by the sole desire to obtain as much profit as possible from glass users, and monopoly becomes a vicious instrument of private taxation.

The publication of an article of mine on the bottle combine in the "Daily News" of 14 April, 1910, brought me, in June, 1910, the following letter

from one of the recently independent British firms of bottle manufacturers :

> "DEAR SIR,—Seeing your article in the London 'Daily News' some time ago regarding the combination in the glass bottle trade, we write to say that we regret this is now almost an accomplished fact, and we are appealing to you to help us in our struggle for existence. We have been compelled to sign the Articles of Agreement or close our works. We are sending to our own member of Parliament and also to the President of the Board of Trade to see if something cannot be done to help us to maintain our independency.
>
> "If you feel disposed to help us we will furnish you with all particulars."

I hope this letter will help the public to realize what curious things are happening in industry at the beginning of the twentieth century. Here we have a respectable firm of manufacturers compelled either to go out of existence or to join an industrial combination. And for what purpose? Why is this firm forced into the combine? For one purpose, and one purpose alone, and that is to maintain artificially the price of bottles against those who desire to buy them.

The economist has very seriously to amend his

arguments and conclusions in view of the combination movement. Ideas based upon the conception of buying and selling in a competitive market need to be entirely revised when free markets no longer exist for so many products. Economics must reckon, not with an "economic man" buying with full information in a competitive market, but with a human being of very limited information blindly buying at artificially maintained prices the products of an industrial combination of whose existence he is ignorant.

IX

INDUSTRY WRIT LARGE

ALTHOUGH the world is still for the most part peddling with its very limited resources, the advantages of production and distribution on a large scale have been realized in many directions in recent years in the great industrial nations. There can be no question that the world must see a good deal more of dealings in big quantities if it is ever to pool its resources and make them more commonly available. In the meantime, and for many years, the majority will continue to be dependent upon trifling dealings whose relation to the aggregate effect of all such dealings they do not understand, and they will be from time to time surprised, as in the past, to learn that rubber, or meat, or tea, or some other commonplace necessary of civilized existence has run short.

It is as yet little understood upon what a large scale man, even in his present imperfect condition of development, has learned to control what we call business. Some forty years ago John Stuart Mill wrote that "The very idea of conducting the

whole industry of a country by direction from a single centre is so obviously chimerical that nobody ventures to propose any mode in which it should be done," and it is probable that many believe this utterance to be true to-day. As a matter of fact, experience shows that management on a large scale, so far from increasing the difficulties of business, eliminates them to a surprising extent.

An enormous business with which we all have dealings is the General Post Office. It is a business of infinite detail conducted by a single control with remarkable economy and success. It is a simple business, it should be remembered, only because of the single control. We realize this if we attempt to picture what letter-carrying would be if it were managed by some hundreds or thousands of large and small letter-carrying firms, scattered all over the country, and having dealings and book-keepings with each other as they passed the missives of unfortunate citizens about the country. The complications would be so great that the business would appear to be one of the most difficult industries in existence. The diversity and multiplicity of controls and methods of handling letters might, if it existed, easily lead a superficial observer to exclaim, " How, then, could a single Board of Control cope with

such a work?" Having the single control, and enjoying the established and commonplace simplicity of it, the same sort of superficial observation assumes that Post Office work is inherently simpler than, *e.g.*, housing.

Those who are inclined to believe that there is something extraordinary about a postal business which makes it peculiarly suitable for large scale control might well turn to the national control of her transport system by Germany and compare it with the results of our own piecemeal management—a management never more strongly denounced than by the chairman of our Great Northern Railway when (20 December, 1907) he said: "You can hardly conceive the disadvantages that exist by two unnecessary and separate train services, not always taking the shortest road, not always making connection at a particular junction so that trains may meet, and very often making the arrangements such that they shall not meet."

It is even more interesting to consider what is being done in America in iron and steel control, not by a State department, but by a private corporation.

In 1910 the great combination of capitalists called the United States Steel Corporation had the following gigantic production :—

PRODUCTION UNDER A SINGLE UNIT OF CONTROL

(*Statistics of the United States Steel Corporation for the year* 1910)

	Tons.
Pig iron	11,800,000
Steel ingots	14,200,000
Iron ore from own mines .	25,200,000
Coke manufactured . .	13,600,000
Limestone from own quarries .	5,000,000
Finished steel products . .	10,700,000

It is of interest to observe that this production of iron and steel by a single private corporation is greater than was the production of *all the iron-masters of all the world* at the time when John Stuart Mill wrote the passage which I have quoted above.

But the most remarkable thing about the figures just given is that they represent *a greater production than the entire output of all the iron and steel masters, large and small, of the United Kingdom at the present time.*

In proof of this astonishing statement, I give the following statistical comparison of the United States Trust with the entire iron and steel industry of the United Kingdom :—

IRON AND STEEL: A NATION'S OUTPUT COMPARED WITH THAT OF A SINGLE PRIVATE CORPORATION: 1910

	Total Output, United Kingdom.	Output of the U.S. Steel Corporation.
	Tons.	Tons.
Iron ore produced from own mines	15,200,000	25,200,000
Pig iron produced	10,200,000	11,800,000
Steel ingots produced	6,000,000	14,200,000

It will at once be apparent that if all the iron and steel works of the United Kingdom were amalgamated, and managed by a single board of directors, thus monopolizing the entire iron and steel resources of our nation, the combination so formed would be a much smaller business undertaking than is now actually at work in the world across the Atlantic. *That is to say, a single British iron business is as practically possible as a single British postal business.* It is perfectly possible to combine the units of national industry; it remains to discuss whether such combination is economically desirable, and further, whether, if it is economically desirable, the management should be (1) that of a private board of directors, or (2) that of a board appointed in the public interest.

Whether we discuss it or not, whether our statesmen face it or not, the unification of capitals is proceeding and will proceed. Industrial states within the State are arising in all the great industrial nations, and economists and statesmen alike for the most part refuse to face the realities of the case.

I have given but an imperfect idea of the magnitude of the undertaking of the United States Steel Corporation. The British iron and steel industry is carried on in a country whose total area is 121,000 square miles. The various properties of the United States Steel Corporation are scattered over an area of about 250,000 square miles. A combination of all the British iron and steel works would thus be smaller and more compact, and therefore not less easily managed, than the American trust. The American trust owns coal-mines, iron-mines, limestone quarries, railroads, a steamship company, natural gas supplies, and one hundred and forty-three iron and steel works, covering every branch of the manufacture. Approximately, it owns one-half of the American iron and steel industry.

Such are the developments which characterize industry at the close of the first decade of the twentieth century. He would be a bold man who ventured to put a limit to such developments

narrower than that which gravitation compels. Fortunately there is no reason to believe that anything but ultimate good will be derived from the process, and in the meantime we shall do well if we apprehend and regularize its development, and face the problem of reconciliation between the government of "nations" and the government of "industries."

X

STATES WITHIN THE STATE

JUDGE ELBERT H. GARY, the Chairman of the United States Steel Corporation, the trust which controls an iron and steel business so great that it far exceeds in magnitude the whole of the iron and steel undertakings of the United Kingdom put together—gave evidence on Friday, 2 June, 1911, before the Committee which had been appointed by the American House of Representatives to inquire into the operations of the combine of which he is head.

Mr Gary offered startling opinions to the Committee, which are said to have considerably surprised its members. He objected to anti-trust laws as archaic and uneconomic, and counselled the American Government not to prohibit large-scale operations, but to control large-scale operations in the interest of the public. He favoured Government control of all industrial concerns engaged in inter-State trade within America, and said that the Steel Corporation's solution of the Trust problem was establishment of a responsible official depart-

ment of the American Government, which would ultimately control operations and prices.

Thus a definite proposal for the erection of an American Minister of Iron has been made, not by an arm-chair economist, or by what my friend —— calls "a sloppy Socialist," but by a leading American capitalist. The transformation of private into public monopolies is, of course, only a matter of time, but I confess I did not expect so early in the history of the modern industrial combination movement, that a great American trust would be found bending to the force of public opinion and recognizing that it has either to be resolved into its factors or deprived of the right to do what it likes with its own. I understand that in his evidence Mr Gary frankly admitted that it was the course of events which had led him to put forward his view in self-preservation.

Let us clear our minds of cant with regard to trusts and combines, and ask ourselves what are the practical alternatives open to a State in its relation to modern industry.

It was impossible that competition could remain a permanent factor in relation to well-understood operations. There can be, there must be, and there will always continue to be competition in regard to the devising of new methods and in the discovery of new materials and new principles. But as to the

mere reproduction of well-known articles, competition is the most childish of absurdities. The very children would laugh us to scorn if they saw us laying two sets of gas-pipes in one street; duplication of effort in such a matter is obviously absurd. Duplication of effort in erecting two factories to put out rather less product than one factory could produce if fully worked is equally absurd, if not so obvious. In relation to any particular branch of industrial production there is a certain maximum unit of economic production. In practice the economic truth is being arrived at with much rapidity in these later years, and in all trades we see unit joining with unit to eliminate the waste of competition.

Unfortunately, as competitive waste is eliminated, the managers of an industrial combination are able, while producing less wastefully and therefore more cheaply, to exercise the vice as well as the virtue of monopoly. They can make themselves in effect a state within the State, and make such laws for themselves as seem good in their eyes.

Dealing with the resulting problems, what is it the duty of a Government to do?

Is it reasonable to endeavour to restrain the economic principle of combination by setting up a limit, say, of product or of capital or of territory, beyond which it shall be illegal for a private indi-

vidual to go? To ask the question is to answer it. How can a Government in possession of its senses deliberately make production more costly by enacting that, say, the United States shall not have one great sensible economic iron and steel business, with all its parts working and moving as an organized whole, but a separate iron-works for each State of the Union? Such a remedy would be worse than the disease. It is economically possible that a great trust, through the elimination of competition, might be able to sell more cheaply than a hundred scattered competitive concerns, *even though it made a huge monopoly profit.* The idea that trusts are to be checked by the enactment of some arbitrary limit of size, however defined, must be abandoned.

In a word, the industrial combine has come to stay, and the economic forces which produce it cannot be and must not be opposed.

And that being so, there is in the long run only one alternative to the policy of suppression or of splitting up.

It is to recognize that a certain business has become a state within the State, and in one of many possible ways to control it for the public good. In the case of the United States Steel Corporation, its president suggests a sort of Government inspection, audit, and regulation, extending apparently as far as the control of the

quantity of output, the prices to be charged for that output, and the sale of the product in the home market and in the export market. It would be a form of Socialism akin to that of the London Water Board or the Port of London authority.

Some such form—and the possibilities of variation in the form of control are great—would, while ridding America of the tyranny of a private Iron and Steel State, taxing the public through price, retain for the industry the tremendous advantage of co-operative production, and make it possible at one and the same time to make American iron of the greatest possible service to the American public, while securing for American iron producers proper remuneration and regular maintenance beyond the possibility of unemployment or destitution.

The facts stated in a previous page as to the dimensions of the American Steel Trust help us to realize what a gigantic problem was under consideration by the American Congressional Committee of Inquiry; it will help us also to realize one of the main causes of our comparative stationariness in the world of iron. It is the fact that our iron-masters are conspicuously lacking in co-operation as compared with either their American or German rivals, and co-operation is essential to modern economic production.

To resume, if a nation arrives at a consolidation

of industry in a particular branch, it can for ever abolish unemployment in that branch. That is to say, it can easily decide what quantity of labour is needed in the branch, limit entries into the trade to the requirements of the branch, and make the labour of the trade a regular matter-of-course charge upon the branch. Absolute regularity of output and of work is (fortunately) impossible for man ; what is easily possible is regular maintenance out of the product of a trade for all those who work in it. That is the final solution of the problem of unemployment, and there is no other solution. We cannot now, in the year 1912, say how long it will be before civilized nations decide to organize work, and thereby rid themselves of the waste of life and labour which is a commonplace to-day. The nature of the working out of the problem is no longer in doubt, however, and twentieth-century developments are so remarkably rapid that many now living will probably see the worst elements of waste eliminated. In the history of industrial organization the proposals of Mr Gary to the United States Government are likely to be a prominent landmark.

XI

A WORLD IRON KINGDOM

THIS Judge Gary, the eminent American lawyer whose views we have been considering, is a remarkable man. He is distinguished by that capacity to envisage the scattered factors of a great and complex problem as a new conception which ever distinguishes the really great mind. I have shown in the foregoing pages how he suggested in evidence given before the Congressional Committee on the Steel Trust that the American Government should become an active partner in the greatest iron and steel corporation in the world, to control its operations in the interests of the American public. Judge Gary is not content with conceiving the American iron and steel industry as an American national concern. He has dreamed a larger dream. His eye travels beyond the American border to survey the entire kingdom of iron, whose boundaries are the boundaries of Mother Earth. He desires to see all the world's iron producers linked together in co-operative effort. And he has so far impressed his ideas upon others that the world's iron producers

have made a move which may prove to be the first step towards the realization of Judge Gary's dream of an empire of iron.

That excellent trade newspaper, "The Ironmonger," has given us a sketch of the growth of Judge Gary's ideas of a world-wide iron policy. They seem to have originated in 1907, at the close of which year, the reader will remember, there was a great financial panic in the United States. In that year, on Judge Gary's initiative, a general committee of American iron and steel magnates (the United States Steel Corporation, it will be remembered, covers about half the American industry) was formed with the object of co-ordinating outputs, maintaining prices, and generally securing a greater stability. It is claimed that the efforts of this Committee were in large degree successful. In the following year, 1908, the British Iron and Steel Institute (a technical, not a commercial body) entertained Judge Gary to dinner in London. He then claimed that because of the measures of co-operation which have been referred to, the 1907 panic had left the American iron trade practically unscathed, common agreement between the various American producers having prevented demoralization and insolvency. He proceeded to suggest that principles which had been successful in America should be extended to the world at

large, and invited other nations to co-operate with the United States in the matter. This was in September 1908. In December, three months later, Judge Gary made a speech at a trade dinner in New York in which he again advocated the adoption of measures for the international regulation of prices.

In September 1909 we find Judge Gary dined at Sheffield by our leading iron and steel manufacturers. He then uttered the following remarkable words :—

> "What is the good of fighting? You win to-day, but your rival wins to-morrow. The present commercial system is akin to 'beggar your neighbour.' Why not agree to share the trade of the countries of the world on reasonable friendly lines?"

In 1910 "The American Iron and Steel Institute" was established, a body which, unlike our British Iron and Steel Institute, is concerned not with technical matters, but with the conceptions and projects which are the subject of our present consideration. The first formal meeting of this Institute was held in October 1910, in New York, and was attended by the leading members of European trade. At this meeting, both Judge Gary, the Chairman, and Mr J. A. Farrell, the President

of the United States Iron and Steel Corporation, again advocated international co-operation. It was claimed that nothing unreasonable or unfair in the matter of price agreement was contemplated; the only desire was to secure stability as opposed to demoralization. The seller was not to take advantage of the consumer by advancing prices unreasonably; the consumer, on the other hand, was not to endeavour in times of depression to secure material at rubbish prices. As a result of this 1910 Conference, it was resolved that a convention should be held in Europe representative of all the iron and steel producing countries, "with a view of forming an International Association to extend existing friendly relations between steel producers throughout the world."

Accordingly, one of the most important, if not the most important, trade conferences that have ever been held in the world, met at Brussels on July 5-6, 1911. The world's press was excluded from the Conference, but much of what took place leaked out at the time, and an official report of the proceedings has since been issued. Judge Elbert Gary was appropriately elected as Chairman, and Mr W. B. Peat of London was elected Secretary.

Judge Gary gave an eloquent address, in which he compared the efforts to arrive at co-operation in international industry with the efforts to bring

about arbitration in the political sphere. It was not too much to hope that war would some day be a thing of the past, and, he urged, the steel industry, by "presenting an undivided front, might render some service in bringing about universal peace." He pictured the advantages of general co-operation throughout the world's iron kingdom in order that production might be regulated to meet demand and to prevent demoralizing price-cutting in bad times. But the proposed International Association was not merely to have a sordid point of view; the institution should be a meeting-ground where the world's steel manufacturers could discuss economical, ethical, and sociological questions.

The Judge's speech was followed by a chorus of approval from such men as Sir John S. Randles (Britain), Baron von Bodenhausen (Germany), Sir Hugh Bell (Britain), M. Dreux (France), Herr Wilhelm Kestranek (Austria), Mr Chas. Schwab (United States), Mr J. T. Drummond (Canada), and others. Sir Hugh Bell moved, and Baron von Bodenhausen seconded, the following resolution, which was carried unanimously:—

> "That this meeting thanks His Honour Judge Gary for his address, and approves the views therein expressed, and the meeting accepts the suggestion that a committee should be appointed

to consider in what manner practical effect can be given to those views, such committee to consist of not more than five representatives from each country, to be empowered to consider the whole question, and to report the result of its labours to a subsequent meeting to be convened by the committee."

This was on July 5th, 1911. On July 6th, the committee which had been elected by the delegates was announced. The various countries had the following representation upon the committee:— Austria 3, Belgium 5, Canada 2, France 5, Germany 5, Great Britain 5, Hungary 1, Russia 3, Spain 1, United States 5; Total 35.

And thus an International Iron and Steel Association, charged with the general oversight of the world's iron, and *charged with that oversight primarily in the interests of the world's iron producers,* has become an accomplished fact.

Is it for good or for evil that this association has come into being?

From one point of view we are faced with what appears to be an association of the producers of an indispensable material. We are confronted with what may develop into a world state—a kingdom of iron far more powerful than the majority of the earthly kingdoms which exist.

Obviously, the laws of such a state would have no regard for political boundary lines. The rulers of such a state could, if their power was unchecked, bring the industrial world to a standstill, or dictate what terms they pleased for their products. We should have a World Trust which could enrich itself at the expense of the world. In illustration of the worst that could be done, I may point out that one of the delegates at the Congress is reported to have uttered the following remarkable words :—

> "We are masters of the world now. Henceforth governments must take a back seat. They can no longer make war or peace, as we are united, and control iron and steel. And in dealing with the Association they can buy only at one price."

But, on the other hand, is it not inevitable that in the long run the world's resources must be handled co-operatively? Is it not absurd to suppose it necessary or desirable for the world's iron for ever to be controlled by competitive producers, each of them seeking individual profit, and each of them at war with his fellows? Is war in the economical sphere any less deplorable than the physical warfare which, be it remembered, so

often springs from the very economic differences which world combination could prevent?

And, as for the power of a World Trust, it may be all for good that such a great association of producers should stand out prominently in the world's affairs. Such a combination cannot be hidden under a bushel, and I think we may trust the statesmen of the world to see to it that the trust should not work for evil but for good. If we imagine the association successful, and the world's iron considered as a whole and dealt with as a whole, surely it only remains for those other ideas of Judge Gary's—those which he put before the Congressional Committee earlier in 1911—to take effect to ensure that the world combination should be for the good of both iron producers and iron consumers. In short, such an association could not far proceed before the governments of the world would take a hand in its operations, and we might arrive at a real and genuine international world iron co-operation, and at that all-desirable and all-important thing, the conservation and best use of the world's iron.

Those who realize, with the late Professor Thorold Rogers, the exceeding value of the economic interpretation of history, will find in the important matters which I have briefly reviewed one of the most significant of modern world

revolutions. It has not taken up so much space in the newspapers as a political turnover in a little country called Portugal, but it counts amongst the most important happenings of our already crowded twentieth century.

XII

BRITISH IRON STAGNATION

(1) *A Plain Statement of Fact*

AT the annual meeting of the British Iron Trade Association in May 1911, Sir Charles MacLaren took occasion to direct the serious attention of the nation to the comparative stagnation of British iron and steel production. I find that, writing in September 1906, I pointed out that in 1905 "America produced 22,992,000 tons of pig iron, Germany 10,700,000 tons, and Britain 9,593,000 tons." I added that the 1905 production figure marked what appeared to be the beginning of a new advance in our production, and that "that advance was needed," seeing that as long ago as 1882 we produced 8,600,000 tons of pig-iron.

Writing at the end of 1911, after an interval of five years, I am sorry to say that the spurt of 1905 has not been maintained. In 1910 Britain produced 10,200,000 tons of pig, or only 600,000 tons more than in 1905, and only 2,500,000 tons more than in 1880—thirty years ago!

PIG IRON PROGRESS

Estimated Output of Pig Iron, 1880 to 1910, in certain Countries, and Estimated Output of the World.

Year.	Estimated Total Output of Pig Iron in the World.	Of which there was Produced					
		In the United Kingdom.	In the United States.	In Germany and Luxemburg.	In France.	In Belgium.	In the Russian Empire.
	In Millions of Tons.						
1880	18.2	7.7	3.8	2.7	1.7	0.6	0.4
1885	19.5	7.4	4.0	3.6	1.6	0.7	0.5
1890	27.5	7.9	9.2	4.6	1.9	0.8	0.9
1895	29.0	7.7	9.4	5.4	2.0	0.8	1.4
1900	40.5	9.0	13.8	8.4	2.7	1.0	2.8
1905	53.5	9.6	23.0	10.7	3.0	1.3	2.7
1906	58.5	10.2	25.3	12.1	3.3	1.4	2.6
1907	60.2	10.1	25.8	12.7	3.5	1.4	2.7
1908	48.2	9.1	15.9	11.6	3.3	1.3	2.7
1909	60.0	9.5	25.8	12.4	3.6	1.6	2.8
1910	65.5	10.2	27.3	14.6	4.0	1.8	3.0
Increase in 30 years, 1880-1910	47.3	2.5	23.5	11.9	2.3	1.2	2.6
Increase in 20 years, 1890-1910	38.0	2.3	18.1	10.0	2.1	1.0	2.1
Increase in 10 years, 1900-1910	25.0	1.2	13.5	6.2	1.3	0.8	0.2

Let us now examine the foregoing table, which exhibits pig-iron progress in the leading iron nations, and which was prepared at my request by the Board of Trade.

These figures clearly reflect what has actually happened. Having established supremacy in the iron and steel trade, Britain allowed herself to get lamentably behind in the science of the iron and steel manufacture. During the last ten years or so there has been, I rejoice to say, a great overhauling of our iron and steel works, but at the end of the nineteenth century an exceedingly large number of our plants were obsolete if not archaic. To the enormous blast furnaces of Germany and America we opposed the tiny little furnaces of a bygone age. It was as though in naval matters we opposed the battleships of the 'eighties to modern Dreadnoughts. (And, since so much is said of the superior enterprise of private industrial captains as compared with State servants, let us take note of all that is implied in the contrast between naval efficiency and iron stagnation.)

But, it will be observed, the bringing up to date of a great part of our plant has not very greatly improved our actual position, while our relative position has grown even worse. The same impression will be gained from the following table, which deals with steel :—

STEEL PROGRESS

Estimated Output of Crude Steel, 1880 to 1910, in certain Countries, and Estimated Output of the World.

Year.	Estimated Total Output of Crude Steel in the World.	Of which there was Produced					
		In the United Kingdom.	In the United States.	In Germany and Luxemburg.	In France.	In Belgium.	In the Russian Empire.
	In Millions of Tons.						
1880	4.2	1.3	1.3	0.6	0.4	0.1	0.3
1885	6.0	2.0	1.7	0.9	0.6	0.2	0.2
1890	12.2	3.6	4.2	2.2	0.7	0.2	0.4
1895	16.5	3.0	6.1	3.9	0.9	0.4	0.9
1900	27.5	4.9	10.2	6.3	1.5	0.6	2.2
1905	44.5	5.8	20.2	9.9	2.2	1.2	2.7
1906	50.5	6.5	23.4	11.0	2.4	1.4	2.6
1907	52.0	6.5	23.4	11.9	2.7	1.5	2.5
1908	40.5	5.3	14.0	11.0	2.7	1.2	2.6
1909	53.2	5.9	24.0	11.9	3.0	1.6	2.7
1910	58.0	6.0	26.1	13.5	3.5	1.8	2.8
Increase in 30 years, 1880-1910	53.8	4.7	24.8	12.9	3.1	1.7	2.5
Increase in 20 years, 1890-1910	45.8	2.4	21.9	11.3	2.8	1.6	2.4
Increase in 10 years, 1900-1910	30.5	1.1	15.9	7.2	2.0	1.2	0.6

It is not suggested here that Britain could hope to hold her own in iron and steel production with the United States of America, a country which is the richest coal and iron ore country in the world. But what are we to say of the comparison with Germany, and even with France? We see that in twenty years Britain has increased her steel production by 2,400,000 tons, against 11,300,000 tons by Germany, 21,900,000 tons by America, and 2,800,000 tons by France. In the last decade our comparative progress is still more unsatisfactory. In 1900-1910 the British increase in steel production has been only 1,100,000 tons, against an increase of 2,000,000 by *France*, a country with coal resources far inferior to those of the United Kingdom.

In a third table (page 166) I show, by comparing British iron and steel output with that of the world, how the British position has changed comparatively. It was obvious a generation ago that there would be changes in the relative position of the iron nations; such a change as is shown here was undreamed of, and, it may be added, such a change is not creditable to British enterprise.

The British Isles were provided for by nature in such fashion as to make them a natural iron workshop. It is not only that we have good coal, but that we have coal situated near tide water, so that

iron ore, etc., can be cheaply brought to the coal. Germany has not such advantages, while France, of course, is quite out of the running in point of coal. It is true that we are more dependent upon

BRITAIN'S PLACE IN THE IRON WORLD

Estimated Production of Pig Iron and Crude Steel in the United Kingdom compared with the Estimated Output of the World, 1880-1910.

Year.	Estimated Total Output of Pig Iron in the World.	Production of Pig Iron in the United Kingdom.		Estimated Total Output of Crude Steel in the World.	Production of Crude Steel in the United Kingdom.	
		Total.	Proportion to World's Output.		Total.	Proportion to World's Output.
	Million Tons.	Million Tons.	Per Cent.	Million Tons.	Million Tons.	Per Cent.
1880	18.2	7.7	42.3	4.2	1.3	31.0
1885	19.5	7.4	37.9	6.0	2.0	33.3
1890	27.5	7.9	28.7	12.2	3.6	29.5
1895	29.0	7.7	26.6	16.5	3.0	18.2
1900	40.5	9.0	22.2	27.5	4.9	17.8
1905	53.5	9.6	17.9	44.5	5.8	13.0
1906	58.5	10.2	17.4	50.5	6.5	12.9
1907	60.2	10.1	16.8	52.0	6.5	12.5
1908	48.2	9.1	18.9	40.5	5.3	13.1
1909	60.0	9.5	15.8	53.2	5.9	12.4
1910	65.5	10.2	15.6	58.0	6.0	10.3

imported iron ore than Germany, and that Sidney Thomas's invention of the basic steel process enabled Germany to make use of her enormous supplies of phosphoric ores. Nevertheless, the ruling factor in the iron industry is coal rather

than iron, for it pays to take ore to coal, but it does not always pay to take coal to ore.

The movement of commerce and industry in these later years is so rapid that we have continually to revise our conceptions. Writing in 1909, I find that I expectantly looked forward to a great advance in the British iron production, and no one, even at that late date, imagined that Germany would very soon take the lead, not merely in iron and steel production, but in iron and steel exportation. In 1910 Germany ran neck and neck with us in iron and steel exports, being behind us in some items and ahead of us in others. Taking the British and German official classifications as they stand, in 1910 we exported £43,000,000 worth of iron and steel, while Germany exported 849,000,000 marks worth (or, say, £42,000,000). But the classifications are not the same, and on a strictly similar classification Britain undoubtedly held the lead. The rate of the German advance is such, however, that our supremacy in iron exportation is in imminent danger, and only too likely to go the way of our supremacy in iron production. As I need hardly point out, production is far more important than exportation.

What is the secret of the extraordinary German advance—an advance which, as I have said, has

been made in spite of natural conditions inferior to our own?

In the first place, we have undoubtedly to admit that Germany has come to possess superior industrial science. In the second place, Germany possesses a superior organization of the members of her iron and steel trade, conducting her operations on a larger scale and thinking in large figures. The German Steel Syndicate surveys the home market and foreign markets and organizes an industrial plan of campaign. It grants export bounties (Tariff "Reformers" often mistake this private arrangement for a Government bounty), and in a decade has quintupled the exports. In the third place, Germany possesses national railways, and is easily able therefore to arrange freight rates to stimulate her trade, while our trade is strangled by the exorbitant charges of private monopolists. I repeat here once more that Germany, because of her better railway facilities, possesses greater *internal* Free Trade than we do. The question of railway rates touches industry at every point. The fuel and raw material have to be assembled; the finished products have to be conveyed either for home use or for export. At every point the German is assisted by freights so much lower than ours that the handicap on this account alone is considerable.

Germany, by a determined process of national organization, is winning wealth in a comparatively poor country. The same royal road of efficiency is open to us, and in relation to a natural fitness for industry which is superior to that of Germany. How long will Britain consent to turn her advantage into a handicap?

(2) *Some Points Cleared in Controversy*

The foregoing essay, in an abbreviated form, was published in the "Daily News" of 18 May, 1911. It was found to interest a great many people, and the "North-Eastern Daily Gazette," published at Middlesborough, a seat of the British iron industry, asked my permission to republish it in its columns. I gladly complied, and the publication led to a most interesting and informing discussion and correspondence, in which many British ironmasters joined.

On 25 May, 1911, the "North-Eastern Daily Gazette" published an interview with Sir Hugh Bell. The great ironmaster gave an *apologia* of several points as to the change in the relative

position of the three leading iron nations, as follows :—

(1) *British Deficiency in Raw Materials.* "Compare the imports of ore into the three countries of which I am speaking with the home output, and it will be seen how entirely each country depends upon its home production of ore, and merely supplements it practically in the same proportion with foreign ores."

(2) *As to Export Bounties.* "I should like to ask Mr Chiozza Money out of what fund the German Steel Syndicate grants export bounties."

(3) *As to Railway Rates.* "I should like Mr Chiozza Money to tell me where the German national railways derive the means to stimulate their trade by the arrangement of freight rates. If the German railways are carrying minerals below the actual cost, I should like to be told out of whose pockets the balance comes. I should like a demonstration that when all the circumstances are taken into account the German railway rates are lower than ours."

(4) *A Complaint as to Legislative Burdens.* "I assert that legislation in recent years has very seriously hampered his (the British ironmaster's) operations."

Here we have the defence of a leader of the British iron trade. Let us take it point by point.

(1) *As to Raw Materials.* Sir Hugh Bell evidently spoke upon imperfect information. The facts as to German and British imports of iron ore in recent years are, unfortunately, as follows :—

IMPORTS OF IRON ORE INTO BRITAIN AND GERMANY

	Into United Kingdom.	Into Germany.
	Tons.	Metric Tons.
1891	4,500,000	1,500,000
1891	3,200,000	1,400,000
1893	4,100,000	1,600,000
1895	4,500,000	2,000,000
1897	6,000,000	3,200,000
1899	7,100,000	4,200,000
1901	5,500,000	4,400,000
1903	6,300,000	5,200,000
1905	7,300,000	6,100,000
1907	7,600,000	8,500,000
1909	6,300,000	8,400,000

Again, Germany's imported ore has to undergo a very long haul to its seat of use. The United Kingdom imports can be brought cheaply from Spain, or Sweden, or elsewhere by sea straight to coal. We have infinitely greater advantages in this regard than Germany. But let me quote that great authority, Mr J. Stephen

Jeans, at whose feet in iron matters I have always been content to sit :—

"*But the ore and the fuel* (of Germany) *are more than* 150 *miles apart*, and can only be connected by the payment of railway rates to the tune of 7s. per ton of material carried in either direction."

In short, *all* German ore, for practical purposes, has to be *imported* into its place of use, whereas British iron and British coal have been placed together by Nature.

America also, although independent of importation, has to transport much of her ore over long distances, which means *importation* to the furnace.

(2) *As to Export Bounties.* The practice is that the German Steel Syndicate pays to German steel manufacturers who export goods made out of its steel a rebate on the price paid for the material. Apparently the practice is a direct encouragement to export trade, and presumably the Steel Syndicate finds compensation in enlargement of output and consequent cheapness of costs.

(3) *As to Railway Rates.* Sir Hugh Bell asks "out of whose pockets" the low German railway rates come. It is a strange question, and it is not a little significant that it should have been asked. Can Sir Hugh Bell be unaware, as his question implies, that the German national railways make

a net profit, in relief of taxation, of £50,000,000 per annum?

Germany can make huge railway profits out of cheap fares and low freight rates because she has not to pay dividend on a sham capital such as the £1,300,000,000 which masquerades as British railway capital. But let me turn again to that recognised authority, Mr J. Stephen Jeans. In his work on the iron trade he pointed out how British natural advantages "are not realized as they should be because of the relatively high railway rates enforced." We ought to be able to assemble in any coal district of Britain, coal, ore, and limestone more cheaply than Germany. Yet Sir Hugh Bell shuts his eyes to German acquired advantages, even as he also shuts them to our natural advantages.

In the "North-Eastern Daily Gazette" of 23 May, 1911, Colonel Rawdon, of Messrs Samuelson Bros., agreed that German railway rates gave her iron-workers an advantage. "The North-Eastern Railway have no right to pay a dividend at 7 per cent. out of us . . . . it takes 5½ tons of material to produce a ton of pig-iron, and the cost of the carriage to our firm is about 7s. 8d. In Germany the carriage would only amount to about 60 per cent. of that sum."

(4) *As to Legislative Burdens.* Sir Hugh Bell

is quite mistaken when he says that British ironmasters are hampered by legislation as compared with their German rivals. The very reverse is the truth. It is the German ironmaster who has been burdened with the heavy cost of German sick and invalidity insurance, and the magnificent German accident insurance, while our employers have so far gone scot free as to sickness and invalidity, and have escaped with comparatively paltry premiums under our inefficient Workmen's Compensation law. The House of Commons White Paper (Cd. 5678), just issued in connection with our belated insurance schemes, shows that German firms have to pay insurance charges for their workpeople such as the following :—

	Per Head per Annum.
Arenberg Mining and Smelting Co.	£5 7 3½
Rhenische Stahl-Industrie . .	2 15 6
Krupps	3 2 8

Taking accident compensation alone, British metal masters pay only 7s. 5d. per head premium, while the German pays 16s. 2d. The iron charges, taken alone, are in similar ratio. Even with Mr Lloyd George's Insurance Act in operation, the British employer will be much less heavily burdened than the German.

To my mind, the most significant thing about Sir Hugh Bell's remarks is that they betray such a certain lack of acquaintance with foreign conditions and developments. Perhaps that lack of acquaintance explains a great deal. There are advantages and disadvantages in living on an island.

XIII

SYMPATHY—IN PATCHES

ON 21 December, 1910, the date of the Pretoria Pit (near Bolton) colliery disaster, a certain weekly review referred to the colliers of South Wales in the following terms :—

> "Such creatures as the Welsh miners, men who are striking apparently with no ostensible object, save the creation of anarchy . . . men of this kind—if they are worthy of the name . . ."

At eight o'clock in the morning of the publication of the above words, over 300 Lancashire colliers were suddenly killed in the Pretoria mine. At once quite a number of newspapers discovered that colliers are "heroes." It is ever thus. The gentlemen who write for the classes have an unbounded admiration for the working man "when the drums begin to roll." It is normally their pitiful duty to regard the pawns of industry as economic instruments for the creation of profits. In that capacity the industrial unit has a body to be kicked, but certainly not a soul to be saved. Let the miner be blown up with a few hundred of

his fellows, however, and the writer, who ordinarily sneers at the "British workman," is moved by natural sympathy, for, of course, he is no less humane than the rest of us. He is merely a melancholy example of the well-known fact that one-half of the world does not know how the other half lives. If he could be taken by the scruff of the neck, dropped down the shaft of a mine in the Rhondda, compelled to get his own coal for a month in a thin seam, and caused to share the joys and sorrows of those excellent fellows the Welsh miners, he would probably never again insult men as good as, or better than, himself. He would discover that a collier is neither a scoundrel nor an angel, but just the average human compound of good things and bad, capable of doing dangerous work without regarding it as "heroic"; capable of extraordinary patience in face of injustice; capable sometimes, strange as it may appear, of voting for men who despise him; capable on due occasion of risking his life for his fellows.

As the papers are so full of talk about "heroes" when miners perish wholesale, I should like to remind the public that the Bolton colliery disaster, which incited their very proper sympathy and generosity—although, to speak plainly, it is very few who give as much as a penny in these matters—accounted for but a very small part of the killed

in the industrial campaign of 1910. In the year 1910 nearly 5000 men died, and nearly 300,000 were wounded, in the industrial operations which create the material comforts we all enjoy. In mines and quarries alone, about 1750 men were killed in 1910, so that the Bolton disaster needs to be multiplied more than five times to give us a true picture of what mining and quarrying means to the hard-working, wretchedly housed people who engage in it. What is called an "awful colliery disaster" in the headlines of the newspaper barely disturbs the average of colliery fatalities, so large is the miners' death roll every year. On the whole, it is an excellent thing for the collier's widow when her husband perishes with many of his fellows instead of dying indiscreetly by himself. It is the fate of the greater number of those who die to perish not in battalions but in single spies. The roof falls, or the cage goes wrong, and a collier's widow is made. On the average, about thirty men are slain in some such obscure way every week, and they never get as much as a headline. It is the wise miner who contrives his death in, to use another favourite term, a "holocaust." His virtues are then published far and wide, and it is far better for his family.

The fact is, of course, that we cannot sympathize without knowledge. If the contents of the coal

scuttle excite in the average householder nothing more than reflections upon coal bills, it is simply because the householder has not eyes to see that every lump of coal has blood upon it. If the average soft-handed man is ready to join in outcries against the wickedness of colliers on strike, it is because he has no proper picture in his mind of what coal-getting is like, and of the incredible patience of those who in Wales, in Lancashire, and elsewhere toil so much, earn so little, and are able to buy such poor things with their earnings.

Sympathy was justly excited at Christmas 1910 by another disaster of a different character. Owing to an act of forgetfulness by a signalman, the Midland Scotch Express dashed into a "stray" locomotive at Hawes Junction and ten passengers were killed outright or burnt alive in the wreck. It was a case for sympathy, and I doubt not that fifty times as much sympathy would go out to railway servants if it were realized that the number ten represents the fatalities to railway men, not in an average year, but in an average week. Four hundred to five hundred men lose their lives every year in carrying on the British railway service, and, in addition, about 25,000 are more or less severely injured.

The death of ten railway passengers is truly

awful, and the public is informed of, and sympathizes with, the victims. The death of ten railway servants every week is not less awful, but the public shows no sympathy because it is not aware of the facts.

The unfortunate signalman whose error was the cause of the Hawes Junction disaster "went on duty at eight o'clock on Friday night, and should have finished at six o'clock on Saturday morning." Can we wonder that he made a mistake shortly before the time he was to have been relieved? *Is it surprising that, in the tenth hour of his nocturnal labour, being then expected to play with stray locomotives while handling an express train, he forgot something?* A little sympathy and common-sense exerted, not after the dread event, but at the right time and in the right place, would have prevented this awful accident. The surprising thing is that, in view of the excessive hours worked by railway servants, they kill so few of themselves and of the public. It is criminal for a signalman to be on night duty for more than six or seven hours at a stretch. If we work him longer, we must take the consequences, and blame not him, but ourselves.

But if railway men ask for shorter hours, or an increase in their miserable pay (the average, confessed to the Board of Trade by the railway

companies, is, as we have seen, only 25s. per week), how much sympathy do railway servants get? The treatment of the recent railway agitation by most of the papers was not very creditable to those who profit by the dangers of railway work.

The low pay of signalmen is also quite unknown to the travelling public. The minimum wage in unimportant boxes is as low as 19s. a week for a twelve-hour day. In cabins rather more busy, the hours are ten a day and the wages 23s. to 25s. (This was the rate of wage of the unfortunate man responsible for the disaster referred to.) Even in very busy cabins, at great junctions, while the hours are eight a day, the pay is only 25s. to 30s. a week.

Travellers by express trains should be provided with a conveniently placed and clearly printed notice somewhat in the following terms :—

YOU ARE TRAVELLING AT THE RATE OF SIXTY MILES AN HOUR, WHICH IS 88 FEET PER SECOND—A RATE AT WHICH IT IS UNDESIRABLE TO ENCOUNTER AN OBSTRUCTION. IT WILL INTEREST YOU TO KNOW THAT THE SIGNALMEN UPON WHOM YOUR SAFETY DEPENDS ARE PAID ABOUT TWENTY-FIVE SHILLINGS A WEEK AND WORKED FOR TEN HOURS A DAY. *By Order.*

NOTE.—This carriage is built of wood, and a cylinder of compressed gas is thoughtfully carried beneath it, because gas is so economical.

It is a very sad thing that the two industries upon which our wealth chiefly depends—coal-mining and the railway industry—should still be so exceedingly dangerous to those engaged in them. I feel very sure that they would become far less dangerous if the public at large were better informed. Here are trades which between them kill about 2000 a year, and maim about 175,000 a year. Yet, when a Parliamentary candidate, I am rarely asked a question in regard to them. I am asked questions about the Congo, and about Opium, and about Vivisection, and about Vaccination, and about Votes for Women (which may or may not include colliers' widows), but no one appears to have any interest in the agencies which create their comfort at the price of a terrible amount of human suffering. It is all very well to wake up on the occasion of a colliery explosion or a railway collision. Sympathy in patches is better than no sympathy at all, but it goes a very little way. It is earnestly to be hoped that interest in collieries and in railway work will come to be exercised continuously, and that a public, better informed as to the average conditions of labour, will compel the legislature to stern preventive measures.

XIV

BEAUTY THAT PAYS

HAVING despoiled Hampstead Heath of no small part of its beauty, the Flat Demon recently cast hungry eyes upon Richmond Park. His purpose was to offer eligible tenants an admirable view of the park from the summit of Richmond Hill, a thing which cannot be done, of course, without offering those in Richmond Park the terrifying spectacle of modern British architecture as applied to what, in the terminology of flat builders and snobs, are called "mansions." Happily, Richmond Park was provided with a guardian angel having the outward semblance of Mr Lewis Harcourt, then First Commissioner of Works, who, with admirable promptitude, gave orders for a screen of trees to be planted across that frontage of the park which faces the proposed Uglification.

As things are, Mr Lewis Harcourt's action is excellent. The trees may prevent the flat-building altogether, since view of a beautiful public domain can no longer be marketed, while in the unfortunate

event of flats being erected, those enjoying the park will find a merciful screen of foliage between them and the sky-scraper. But it is a strange and a mournful thing that we have got through the first decade of the twentieth century of the Christian era without making our Commissioner of Works a Minister of Beauty, with full powers to blue pencil all proposed Uglifications, whether fronting a public domain or otherwise. The public are still helpless in respect of assaults upon the vision. This is the more strange because one may not with impunity assault the public nose or assault the public ear.

English law has an admirable maxim that an individual must not use his property in such a way as to injure his neighbour. If he infringes this maxim he is guilty of a "tort," *i.e.* of a wrong against his neighbour independent of any contract with that neighbour. Thus, if I keep a yelping dog, and so deprive any person of comfort, I can be restrained from keeping an animal which is a public nuisance. Similarly, I may not keep a pig-sty in such manner as to offend my neighbour's nose. But when it comes to the sense of sight I can do pretty well what I please. I can spoil a street by an ugly building, although the ugly building be built solidly enough to offend the public vision for two centuries. I can put up a hideous tower such as has been recently erected by the

Surrey County Council at one of its Asylums, and spoil the beautiful scenery of Surrey for many miles. Worst of all, I can hire villains of the deepest dye to erect notice boards for hundreds of miles along a railway in order to create a veritable panorama of ugliness. Not content with spoiling the day, I can make the night hideous by illuminated sky-signs, and none shall say me nay.

I do not know why it is that the eyes should thus be held to be of less value than the ears or the nose, but so it is.

I should like to advance the proposition that the gift of sight is so exceedingly precious that it is a public duty, not merely to preserve it from such assaults as that contemplated at Richmond, but to adopt a positive policy of education and culture in respect of it.

If this proposition were freely conceded and made the spring of public action, an environment of beauty could be created for the majority of the people of the United Kingdom within a very short space of time, and at a cost which can only be termed trifling in proportion to the magnitude of the end attained.

Take, for example, the flora of the United Kingdom as commonly observed in lane and hedgerow. In spite of Browning's "Oh! to be in England now that April's there," it must be

confessed that the small part of the English countryside which belongs to the people of England—to wit, the highway—presents in many districts an unrelieved monotony. There must be hundreds, if not thousands, of miles of hawthorn and elm, hawthorn and elm, as though Nature knew no other trees. Large areas are almost destitute of the beauty of holly or yew, or even of oak or poplar. And how few districts boast of fair specimens of beech.

The possibilities of wayside cultivation—and, as I shall presently show, of wayside profit—are little realized. There is no good reason why the beauties which Japan boasts of, and which undoubtedly exercise an extraordinary influence upon the life and culture of her people, should not be created here. I may be told that the Japanese seasons and feasts of plum blossom and cherry blossom are a reflex of the sense of beauty of the Japanese people, and that our own lack of such glories is proof of our own inability to enjoy them. However this may be, is it not worth while to undertake the small amount of trouble, and the insignificant amount of expenditure, which are needed to give seasons of exquisite colour to the British Isles?

Let us fancy ourselves on the threshold of the month of April. It is the month when, in the

latitude of England, flower lovely species of the almond, the laburnum, the chestnut, the plum, the cherry, and the apple, to mention no more. Some of these, together with the thorns and the lilacs, flower into or during May. June sees blooming the mountain ash and the tulip tree. July brings the flowers of the lovely Catalpa. I have mentioned here but a few of the flowering, hardy, vigorous trees which the majority of English counties could cultivate, and which might grant their glories and their blessings to a people uplifted by their possession. And I have said nothing of the colour in foliage throughout the year of yew and purple beech and purple plum (*prunus pissardi*).

Given the establishment of State nurseries, and the propagation of suitable trees, and such a scheme need not cost, even at the beginning, more than the price of the yearly building of a single minor war vessel.

This cost, in the course of not many years, would be entirely recouped by the consequent produce of the roadside.

Many of the most beautiful trees give edible fruit as well as flowers, and if a fair proportion of apples, pears, plums, and cherries was planted, a magnificent harvest would be presently available.

Hungary and Hanover have already seen the wisdom of this. In Hanover some 200,000 fruit

trees have been planted by the public authorities, and a public income is derived from them of from £5000 to £8000 a year.

Hungary has carried the policy of roadside orchards to such lengths that in ten years' time she will be one of the chief fruit-producing countries of the world, and in places where the trees have come to maturity, their produce is of sufficient value to pay for the upkeep of the roads beside which they are planted. Hungary has three public nurseries entirely devoted to raising trees for roadside planting. The effect upon the individual, it is found, is to stimulate private planting. Plundering of the public trees is found to be rare. A public opinion on that point soon arises in any country, with the happiest effects upon society. In Hungary certain of the roadside fruit trees are reserved for public use, and labelled accordingly.

I have wandered from Beauty to Profit, and I have done so with intention. I am so well aware that it is difficult to get a hearing for the suggestion that we should make our country beautiful, that to hint at the possibility of adding Profit to Beauty may appear to impart an air of wisdom to an eccentric proposition. For whoever heard of Beauty herself being a utility?

XV

VOTES FOR MEN

THE adult male population of the United Kingdom on 1 January, 1910, numbered as nearly as possible 12,000,000.

The number of names on the registers of Parliamentary electors in 1910 was 7,700,000.

Therefore, to go no further, and to assume for a moment that there are no duplicate names on the registers, as many as 4,300,000 men, or about 36 per cent. of our adult male population, have no voice in the affairs of their country.

The effect of the omission of so many men from the list of the enfranchised is to give undue weight to the upper-class and middle-class vote. Almost the whole of the upper, the upper middle, and middle classes get on the registers, and a very considerable proportion of the lower middle class secure registration. It is the working classes, and in particular the poorer sections of the working classes, who make up the bulk of the unenfranchised citizens. It is those who most need to use the franchise as a weapon who are deprived of the franchise.

Quite apart, therefore, from the question of "one man one vote," the "classes" have a tremendous electoral advantage in that their members are as to a larger proportion on the register of electors than is the case with the "masses."

It is not generally realized how largely that accounts for the preponderance of "class" representation in London. Take, for example, mixed constituencies like Kensington, Paddington, and Marylebone. In these places the middle and upper classes are enfranchised, whereas the working classes, although a majority, are only partly enfranchised. Hence in these places it avails a candidate nothing to be the "people's choice." It is the voice of the registered which prevails.

To proceed, the 7,700,000 names on the 1910 registers did not stand for 7,700,000 individuals. There were about 650,000 names on the lists of ownership and University electors. Mr F. E. Smith, M.P., has expressed the opinion that 400,000 of these are plural voters, but let us, to be on the safe side, assume that not more than 50 per cent., or say 325,000 names, are those of pluralists. This modest estimate reduces the number of *persons* on the 1910 registers to 7,375,000, or 61.4 per cent. of the adult male population.

The next feature of the Parliamentary registers which demands attention is the lodger vote.

In 1910 there were only about 250,000 men registered as lodger electors, including those registered in both boroughs and counties.

Now the number of male adult lodgers cannot be known, but there is not the slightest doubt that it is many times larger than this small figure. The number must exceed 1,000,000.

In practice few but middle-class lodgers get on the register. The great mass of working-class lodgers go to swell the unenfranchised. The existing lodger franchise is almost a sham, and it accounts for no small part of the 38.6 per cent. of unenfranchised men.

But the number of men disfranchised in practice actually exceeds this 38.6 per cent.

Between the making of the registers and their coming into force on 1 January many of the enfranchised die. As there were 12,000,000 *living* men on 1 January, 1910, the number of the *living* enfranchised on that date was 7,375,000, minus 50,000 dead, or 7,325,000.

We have not yet before us all the factors which have to be taken into consideration in judging the electoral handicap of the working classes. Of the working men who find their way on to the register, a considerable number are disfranchised by sheer inability to use their votes. I have been astonished to find in how many cases I have been told in

London that the head of the family goes out in the morning too early to poll, and returns from work in the evening too late to poll. Then there are the many cases of removals which it is impossible to trace, and in which, as a consequence, the voter cannot be supplied with a poll-card reminding him that he has a vote in a certain constituency, and that he should poll at such and such a place. Also there is always a considerable proportion of railwaymen and other workers who are away on duty and who cannot obtain leave of absence to vote, or who cannot afford to travel and lose wages to record their votes.

At the most conservative estimate, cases of sheer inability to vote strikes 500,000 working men from the registers at any general election.

Therefore the number of the really enfranchised in 1910 was 7,325,000, *minus* 500,000, or 6,825,000. This reduces the male enfranchised in 1910 to 56.8 per cent. of the 12,000,000 living males. At the election of December, 1910, the proportion of enfranchised was smaller than this, since, while the number of adults rose during the year, death reduced the number on the register, and many removals increased the difficulties of voting.

The chief factors of the case are therefore as follows (1910):—

(A) The number of males over 21 years of age was about . .	12,000,000
(B) The number of names on the registers of electors was . .	7,700,000
(C) The number of plural voters was not less than . . .	325,000
(D) The number of dead on the register was about . . .	50,000
(E) The number of working men unable to vote was not less than .	500,000

If we add together the items C, D, and E, we get in round figures 875,000 names on the register which are either those of plural voters, those of dead men, or those of men prevented by circumstance from exercising the franchise. Deducting this figure from the number of names on the register, we get only 6,825,000 registered individual electors able to exercise the franchise. To sum up, we get :—

ENFRANCHISED AND UNENFRANCHISED, 1910

Number of male adults . . .	12,000,000
Number of the enfranchised . .	6,825,000
Number of the unenfranchised .	5,175,000

We see that, broadly speaking, our elections are decided by rather more than one-half of the man-

hood of the nation. The "classes" form a small proportion of the entire nation; they form a much larger proportion of that part of the nation which is on the effective register of electors which decides a General Election. Thus the opinion of the "masses" is gravely under-represented.

XVI

TRADE AND THE WOMAN

WOMAN may be uncertain and coy, but I have never been able to make up my mind that Scott was right in adding that she is "hard to please." I hasten over the comparatively trifling point that she tolerates Man, and pass to the really important matter of Dress. If Woman were really hard to please, it would be impossible for her to be the devotee of Fashion, which seems to hold her a securer thrall in each successive season. The average woman is so easily pleased, that she is content to make a frantic endeavour to assume a fresh average shape every year. It may be, and indeed I think it is, exceedingly amusing to see tall women and short women, and thick women and thin women, all at the same time endeavouring to approximate to a certain mould of form fashioned by persons unknown, but it is difficult to see how that attempt can be reconciled with the idea that woman is hard to please. If the

individual woman really possessed that quality, she would work out garments to suit her, instead of diligently endeavouring to make herself a standard pattern woman.

From whatever qualities arising, the rapid change of fashion has a profound effect upon trade and employment.

In the first place, the wider penetration of fashion, and the desire to make outward show of fashion, is leading to the devotion of a large, and probably of an increasing, proportion of the national income to dress. At the present time the everyday wear of a large part of the female population would have been deemed "Sunday wear" twenty-five years ago. That is largely due to the multiplication of factory-made "fashionable" cheap goods. It is clear that few are now too poor to wear the "very latest." Too often the imitation swell emerges from a sordid home. One observes the ill-kept small house, with its poor window furnishings. The door opens, and out of a dingy and sour-smelling passage-way there emerges a female form instinct with that consciousness of beauty achieved, which a great lady once declared to afford a consolation which even religion failed to bestow.

We have next to observe that the labour commanded, and the work created, by the

call of the female population for a vast amount of dress is constantly in a state of turmoil and dislocation.

The expenditure, which is considerable, is constantly shifting in character, and the only thing certain about it is its uncertainty. From season to season the call for materials and articles varies enormously. Suddenly every woman wants velvet or velveteen; as suddenly every woman ceases to want velvet or velveteen. All at once dresses must be braided; all at once it is unspeakable to have a dress braided. A new edict of fashion increases the quantity of cloth required for a skirt; a further edict reduces the quantity demanded.

Just now (I hasten to add, in pages which will doubtless be imperishable, that "just now" means "1911-12"; Heaven knows whether fifteen yards may not be needed in the skirts, if there are still skirts, of 1913) a wail is going up from the woollen trade. A correspondent of "The Times" says that merchants and manufacturers alike have been complaining of falling profits as the result of the hobble skirt fashion. When full skirts were worn a tailor would require from six to nine yards for a costume. Now he only needs from three and a half to six yards, and a tailor of much experience has affirmed that the female

costumes of the forthcoming summer can be cut out of three yards of double width cloth. What that means to the woollen trade it does not need a very lively imagination to picture, and the suddenness with which the desirability of an attenuated skirt has been implanted in the fickle female bosom makes the matter serious to the important trades concerned.

Then, of course, the petticoat makers also have been having a very bad time. What is fun for the street urchin is a matter of quite serious and desperate loss to trades which women have themselves created, and which women as wantonly destroy.

So the game goes on year after year. No trade which caters for woman is safe from violent fluctuation, and none of the persons who work to supply the wants of woman can rely upon continuity of employment.

The extent of this economic evil is constantly increasing. Fashion now travels as rapidly as news, and permeates all classes of the community. In the old days it was not so. The fashionably dressed formed but a small minority of the whole. Nowadays the wide circulation of fashion pictures, and the multiplication of women's cheap papers, brings the latest shapeliness or unshapeliness to every door, and inspires every woman with a

desire to assume what I have called the "average shape." In a small provincial town as much as in the Metropolis the women keep themselves up to date in costume. Thus the amount of labour affected by the changes is considerable, and the suffering caused by the changes larger than ever before.

Will Woman ever win to individuality in dress? Will Fashion ever be dethroned? Surely some day a wider culture will lead to a greater suitability of fashion, and to a greater simplicity of costume. Individuality of costume has not been unknown in the world. At the end of the fourteenth century the Florentines had got rid of fashion in dress, and each man and each woman dressed as they pleased. It is impossible not to believe that the men and the women of the future will laugh at fashion plates. Against this view it may perhaps be argued that a less artistic people than the Florentines might arrive at some very queer results indeed if released from the trammels of fashion. On the other hand, it may be pointed out that almost every child can be trained to appreciate the elements of true beauty in design.

It is for the women at the top to make a beginning. We badly want a sanity in dress movement, headed by women who will think it

shame to ask what they ought to wear, and absurd not to wear what they want to wear and what it suits them to wear. Let the women at the top take thought of, and pity for, the tens of thousands of young girls one sees about the streets of London making themselves outrageously hideous objects in the pitiable belief that they may be mistaken for ladies of fashion. I could even forgive them if they adopted "suffragette" tactics and smashed up some of the emporiums where the latest uglifications are displayed. I observe that we have reached a point where the fashion in millinery demands the possession of so much hair that even the average draper's is now compelled to stock false hair, which means that an abominable trade has rapidly increased since large hats became the vogue. There is humour to be got out of these things, of course, but there is also in them no small cause for tears. Let the women at the top set an example of respect for the human body and of hatred of shams, whether in hair, in complexions, in materials, or in ornaments, and the nation as a whole will have cause to be thankful. If only women knew what men really think of them, no woman would falsely believe that extravagance of attire adds one-millionth part to her attractiveness. I confess that there have been moments in which I have declared in private, when I could not be reported,

that woman ought not to have a vote until she has the sense to wear a dress that she can fasten up herself.

The ultimate development of the trades which supply woman with dress is a matter of interesting speculation. As things are, a limited number of well-to-do women wear garments specially made to fit them, while the great mass of women wear ready-made factory garments. I imagine it probable that in the time to come, when work will have been reduced to a minimum by the full economic use of labour-saving appliances, and when women have reached a higher general standard of life and culture, every woman will fashion garments to suit herself, and take pride in doing so. The easy performance of the necessary tasks of society will indeed lead to the lavishing of individual effort upon individual things, such as clothing and house furnishings. The proper and full use of machines will, in the long run, make men less, and not more, mechanical in their occupations. This saying is not a striving after paradox. The machines will do the work which is properly mechanical, and which, when performed by hand, make, in effect, machines of human beings. The machines will do that work with such rapidity as to dispose of mechanical matters in a very small proportion of what we now deem

a working day. That will leave mankind with a leisure now undreamed of, and in that leisure will be enjoyed the higher form of employment, the carrying out of congenial and individual tasks.

XVII

HOW LONG AN ISLAND?

ONE fine morning in 1911 we awoke to the fact that a dozen airmen had, without a single mishap, in a quite commonplace way, crossed the English Channel, one of them carrying a passenger, and landed on our shores. A little later they departed by the way they had come. I understand that their departure from France was a matter of great public interest and that enormous crowds gave them a send-off. On this side, however, their arrival was awaited by quite a few people. This is not a little strange, for it is the island nation, and not the Continental nation, which should be chiefly interested in the maintenance of insularity.

The air knows nothing of political boundary lines, and those who can use it may smile at the definition of an island. Britain owes so much to her separation from the Continent of Europe, and to her consequent freedom from wars fought upon her own soil, that I could well imagine a Briton suppressing an aerial invention in the interests of

his country. I could understand that, but I cannot understand the indifference which exists to Continental aerial inventions.

At the recent remarkable flying display at Hendon—a display which will certainly never be forgotten by anyone who witnessed it—it was noticeable that every flying machine was fitted with foreign engines. The all-conquering type appears to be that which revolves as a whole with the propeller which it actuates. I confess that I find it not a little remarkable that the country which was the motherland of modern engineering should have contributed so little to the science of aerial navigation. Watt and Trevithick and Stephenson changed the face of the world. Why should English engineers be content to resign to others the conquest of the air?

The interim report of the Advisory Committee for Aeronautics on the work of the year 1910-11 makes very interesting reading on the point we are considering.

In 1909 Mr Patrick Y. Alexander offered, through the Aerial League, a prize of £1000 for the best motor for aeroplanes which should satisfy certain conditions, including, of course, a satisfactory endurance test. The Advisory Committee for Aeronautics co-operated with the Aerial League in the matter, and undertook to draw up the

necessary regulations and carry out the necessary tests.

In November, 1909, the regulations were drawn up, and they were briefly as follows:

The engine was to be of British make. The motor was to give 35 B. horse-power on a preliminary run. Detailed drawings, etc., were to be furnished. The motor was not to weigh more than 245 lb. including radiator and accessories, and not including the supply of water, petrol, etc. The price was to be stated, and the first option of purchase to rest with the Advisory Committee. Each competitor was to take any steps he desired to patent his invention.

The main points to be decided were: (1) weight and consumption of petrol, (2) reliability and steadiness, (3) wear of the working parts, (4) security against fire, and (5) air resistance offered by the machine.

There would appear to be nothing in these regulations or tests to deter engineers from entering the competition. On the contrary, a substantial prize, the prospect of magnificent business, and an unlimited amount of commercial glory were to be won.

It is regrettable, therefore, to have to state that only six entries were made in the competition in a country which contains many thousands of

engineering firms. But this is not all. Although six firms entered, *only three came up to the scratch* by the day appointed by the Committee, viz. 1 July, 1910.

Further, of the three engines that were entered, *two failed to complete the twenty-four hours' run*, and were thus disqualified in the preliminary test. Thus one little engine remained to fly. I am glad to say that it completed the twenty-four hours' run, but sorry to have to add that it only contrived to maintain the mean horse-power of 31.5 instead of 35.

And so the Patrick Y. Alexander £1000 prize was not won. We need not be surprised to learn, therefore, that in a subsequent aerial race the greater number of the flying machines were fitted with foreign engines.

Quite apart from the application of aviation to warfare, there can now be no possible doubt that there is a great commercial future before the aerial engineer. It was as recently as July, 1909, that M. Blériot flew the English Channel, but already that fact has become a commonplace, and we have had the extraordinary Paris-Rome-Turin contest of endurance. At any moment we may hear of further invention which will do as much for the art as did the invention of the internal combustion engine not many years ago. There

is every reason to believe that the lapse of another ten years will find the industries connected with aviation grown to a considerable magnitude. There is, of course, open to us the second best course of working foreign patents. It would be agreeable to think, however, that there is to be a substantial British contribution in a matter which so nearly concerns us. It is surely not well for an island nation to be in the second flight in such a matter.

It may be that the art of flying may be checked in its progress by national or international regulations of a more or less severe character, but it is not very clear how regulations are to be enforced in such a matter. Law cannot easily trammel a man in a medium where all roads lead everywhere. Moreover, within the limits of any proper regulations that may be made or found capable of enforcement, the possibilities of development are exceedingly great.

As to the application of such machines for war purposes, there seems no manner of doubt that existing developments are of the greatest importance. At the French manœuvres of 1911 the army of one of the contending parties was saved from overwhelming disaster by the scouting of airmen. Indeed, what would have been overwhelming disaster for one side was actually turned

into overwhelming disaster for the other through the information acquired by aeroplane. In the Italo-Turkish war aeroplanes have been used freely in Tripoli, and it does not appear that a single Italian airman has been either killed or injured in several months of operations.

Taking war purposes and peace purposes together, the British engineer has before him an opportunity of enormous magnitude. Little more than a generation ago a foreigner who desired his son to become an engineer, had to send him to this country as the only possible place where he could learn his profession. Surely the British engineers of to-day will show themselves not unworthy of their sires.

XVIII

THE MOCKERY OF EDUCATION

"THE purpose of the public elementary school," says the admirable introduction to the Board of Education's Code for Public Elementary Schools, is to "form and strengthen the character and to develop the intelligence of the children entrusted to it, and to make the best use of the school years available, in assisting both girls and boys, according to their different needs, to fit themselves, practically as well as intellectually, for the work of life . . . and to develop in them such a taste for good reading and thoughtful study as will enable them to increase their knowledge in after years by their own efforts." Let us see what evidence exists as to our success in developing the nation's raw material. How many boys and girls are so stimulated by the elementary school as to continue their studies after their induction into "the work of life"?

On several occasions, when visiting our elementary schools, I have obtained permission to ask the scholars in the highest classes who have

attained the age of 14 years to rise in their places. The test always gives the same result. Of a class of sixty or more children, only some five or six are found to have passed their thirteenth year; the great majority of children are withdrawn from school by their parents at the very earliest moment allowed by the law. At the period in life when a child begins to have any real capacity to receive instruction, systematic training ends. That is to say, education in the real sense never begins *in school* for the mass of our population. It should not be forgotten, however, that education does actually begin. It begins with adolescence in the factory, or the shop, or the street. And so complex is the average boy that you can lead all sorts of strange things out of him in those all important years.

Even 13 years of age spells the limit of systematic training for an enormous number of children. This will be clear from the following statistics compiled by the Board of Education, which show the number of boys and girls attending school at various ages. The figures refer to the estimated number of schools on the register of Public Elementary Schools, including Higher Elementary Schools, schools for the Blind, Deaf, and Epileptic, and "Certified Efficient" Schools in the year 1906-7:—

ATTENDANCE AT ELEMENTARY SCHOOLS, 1906-7

Age.	No. of Scholars.
11	623,100
12	596,759
13	408,341
14	67,811
15	6,932
16	507

The attendance at 12 years of age is 26,000 less than at 11.

The attendance at 13 years of age is as many as 88,000 less than at 12.

And then comes the great stampede. At 14 years of age the scholars drop to 67,811, a decline of 340,000!

Now let us carry the matter further. In 1909 a Committee appointed by the Board of Education to report on the subject of Continuation Schools prepared some valuable statistics as to the attendance or non-attendance of the entire youthful population between the ages of 11 and 21 years of age. Not only the above facts, but attendances at secondary schools, technical institutions, reformatories, and evening schools, were examined in order to arrive at a definite conception of the proportion of children and young people who are under

BOYS AND GIRLS (ENGLAND AND WALES), 1906-7,

at School and not at School (Sunday School excepted).

Age.	Population.	AT SCHOOL.				NOT AT SCHOOL.	
		Day.	Evening.	Total	Per Cent.	Number.	Per Cent.
11	683,700	678,457	...	678,457	99.23	5,243	0.77
12	687,300	669,050	3,826	672,876	97.90	14,424	2.10
13	690,300	497,725	36,704	534,429	77.42	155,871	22.58
12 and 13	1,377,600	1,166,775	40,530	1,207,305	87.64	170,295	12.36
14	691,000	155,682	92,368	248,050	35.90	442,950	64.10
15	682,100	71,921	86,796	158,717	23.27	523,383	76.73
16	649,200	40,149	77,035	117,184	18.05	532,016	81.95
14, 15, and 16	2,022,300	267,752	256,199	523,951	25.91	1,498,349	74.09
17	664,900	23,130	64,138	87,268	13.13	577,632	86.87
18	653,500	12,670	53,770	66,440	10.17	587,060	89.83
19	664,200	6,279	43,896	50,175	7.55	614,025	92.45
20	657,300	5,208	36,992	42,200	6.42	615,100	93.58
17, 18, 19, and 20	2,639,900	47,287	198,796	246,083	9.32	2,393,817	90.68

instruction at various ages. All classes of children were considered, and the students in secondary schools of all sorts and classes estimated liberally in order not to exaggerate the case as to non-attendance. From the Committee's figures I have constructed the table on page 212.

The inclusion in this table of the statistics of upper- and middle-class children leaves the statistics of school attendance over 14 years of age exceedingly unsatisfactory.

In 1906-7 there were about 691,000 children of 14 years of age. Of these, 155,682 attended day schools, and 92,368 attended evening schools, making a total attendance of 248,050, or 35.9 per cent. Thus as many as 442,950 attended neither day school nor evening school. Over 64 per cent. of our boys and girls aged 14 have done with education.

At 15 years of age the proportion of children not at school rises to nearly 77 per cent.; at 16 it rises to nearly 82 per cent.; at 17 it rises again to nearly 87 per cent.

These figures, bad as they are, are swollen by the inclusion of evening school scholars, the attendance of many of whom is very poor. Those who believe with me that the day is the time for school as it is the time for work, should turn to the table solely relating to day schools, which is printed on page 214.

DAY SCHOLARS ONLY (ENGLAND AND WALES) 1906-7.

Age.	Population.	AT SCHOOL.						NOT AT SCHOOL.	
		Public Elementary Schools.	Secondary Schools.	Technical Institutes, Schools of Art, etc.	Reformatory, Industrial, and Poor Law Schools.	Total Day Scholars.	Per Cent.	Number.	Per Cent.
11	683,700	623,100	52,000	...	3,357	678,457	99.23	5,243	0.77
12	687,300	596,759	66,000	1,639	4,652	669,050	97.34	18,250	2.66
13	690,300	408,341	82,000	2,524	4,860	497,725	72.10	192,575	27.90
12 and 13	1,377,600	1,005,100	148,000	4,163	9,512	1,166,775	84.70	210,825	15.30
14	691,000	67,811	80,000	4,520	3,351	155,682	22.53	535,318	77.47
15	682,100	6,932	58,000	4,188	2,801	71,921	10.54	610,179	89.46
16	649,200	507	34,000	4,600	1,042	40,149	6.18	609,051	93.82
14, 15, and 16	2,022,300	75,250	172,000	13,308	7,194	267,752	13.24	1,754,548	86.76
17	664,900	...	18,000	4,435	695	23,130	3.48	641,770	96.52
18	653,500	...	8,000	4,413	257	12,670	1.94	640,830	98.06
19	664,200	...	2,000	4,279	...	6,279	0.95	657,921	99.05
20	657,300	...	1,000	4,208	...	5,208	0.79	652,092	99.21
17, 18, 19, and 20	2,639,900	...	29,000	17,335	952	47,287	1.79	2,592,613	98.21

In this table the day scholars are analysed. It will be seen how large a proportion of those of 14 years of age and upwards are the pupils of secondary schools—chiefly the children not of the "masses" but of the "classes." At 13 years of age there are 408,341 "elementary" scholars to 82,000 "secondary" scholars. At 14 years of age there are but 67,811 "elementary" scholars to 80,000 "secondary" scholars.

At 14 years of age, even including the pupils of secondary schools, the proportion of English and Welsh children at day schools is as low as 22.5 per cent.; at 15 years the proportion falls to 10.5 per cent.; at 16 years it falls to a mere 6 per cent.

It should be borne in mind that the figures of my tables in one important respect make the number of scholars appear better than they really are. I refer to the fact that partial exemption from school attendance affects a great many of the nominal "scholars" exhibited in the early lines of the table. It is, unfortunately, within the power of local education authorities to grant half-time attendance for children between 12 and 14 years of age. In areas containing over 58 per cent. of the population of England and Wales, partial exemption from school attendance is granted by education authorities.

In some districts partial exemption is granted to children who have only reached the fourth or fifth standards. It will be understood how seriously these considerations affect the above statistics. We have not even the satisfaction of knowing that all the children enumerated in the early lines of the table attend school full time.

Let us clearly realize what the position is. Of our boys and girls of 14, 15, and 16 years of age, who number 2,022,000, three-fourths are released from discipline or serious training. The apprenticeship system has largely disappeared, and, for an exceedingly large proportion of those who are withdrawn from school, employment is a matter of mechanical routine, or worse. The boy feeding bits of metal into a machine, or the boy slouching along with a basket over his arm, is unhappily typical of a very large number of those who go to make up the uneducated 74 per cent. of our youth.

To the great majority the school merely provides a few blunt tools—a limited vocabulary, the power to read indifferently well, a rule-of-thumb acquaintance with a few arithmetical processes, and for the rest, some exceedingly vague ideas about kings and battles, seas and countries, and the ancient Jews. I am aware that we are beginning with better things, but

what I have said is true of Education as she is spelled for the great bulk of the existing adults of the United Kingdom. The chief gift of the school to these is the power to read. And what is presented to those able to read?

The power of the printing press is invoked to provide a mass of confused information and notions in the form of news, stories, advertisements, political leaflets, and books. Those who are acquainted with the homes of our people know that very few houses contain more than a few books, and that but a small proportion of those books were worth printing. The modern reader is at the mercy of the only useful gift which has been bestowed upon him by his schooling. It becomes the medium of confusion of thought, not of information, or of intellectual training. Given the power to read, that power becomes, in the absence of a preliminary education, the instrument of folly. It often serves, indeed, merely to distract the attention of those who might otherwise think. Lost in a thousand trivialities, the uneducated reading man is at the mercy of quacks of all kinds, medical, literary, political, and economic.

It would be bad enough if we were the only nation in the world. It would be sufficiently serious if we were a self-contained nation, to whom foreign progress or foreign competition meant

nothing. Even under such conditions it should surely be our aim and desire to train each unit of the population to the fullest possible development of its inherent faculties ; our honour and our pride should surely be alike engaged to see to it that not an ounce of national material was wasted. But we are not the only nation in the world, and we are not a self-contained nation. We are in stern competition with countries which realize that, while it is true that education cannot alter the quality of a child's natural gifts, it can so develop what gifts it possesses as to raise it immeasurably above a child of similar capacity whose faculties have been left dormant. There is happily no reason to believe that the raw material—the inherent genius of the British people—is inferior to that of, say, Germany. On the other hand, there is as little reason to believe that the German raw material is inferior to ours. That being so, if the Germans educate their children, giving them a systematic training in well-equipped schools until sixteen or seventeen years of age, while we leave ours in the condition indicated in the above deplorable statistics, what can be the only possible consequence ? The answer to that question is clearly written for all those who have compared the two nations. It will go hard with our children, and it will go harder with our children's children, if we do not awaken

to the fact that for the great majority of our people education is still a mockery.

Compulsory continuation schools will soon (1912) be general throughout the German Empire. Compulsion has won the day in regard to continuation schools as with elementary schools, because it is unfortunately found in practice that neither parent nor employer can be safely charged with the fate of a child. As we know by bitter experience here, and as the statistics which I have quoted testify, nearly the whole of the children of our elementary schools are turned into untrained wage-earners at the earliest moment which the law, as administered by local authorities, allows.

The parent of the working classes who desires to see his child earning money at the earliest possible moment must not be harshly blamed for his decision. His own earnings are usually inadequate, and his own training and culture has not been such as to give him any profound respect for the importance of education. I make no reflection upon the average parent, therefore, when I say that the parent ought not to be the arbiter of a child's future in deciding whether or not he should attend a continuation school. Those who judge the working class harshly in this connexion must have few gifts of imagination.

The employer also can scarcely be held to be

unprejudiced in the matter. It requires some experience of continuation schools to teach the employer that the best interests of his trade demand the continued training of the child. There exist British employers wise enough to make it a condition of employing a youth that he shall pledge himself to attend technical classes, but the practice is far from common, and as for the wisdom and patriotic spirit to be expected from some employers, it is sufficient to refer to the evidence of a millionaire manufacturer given before the Board of Education Committee above referred to. He naïvely explained that he could not imagine how the children of his town could be expected to attend a continuation school after being tired out by the day's work, which began at 6 o'clock A.M., and ended at 6 o'clock P.M. It should be explained that the millionaire himself is the chief employer of the children of the town. It did not appear to occur to him that 6 A.M. to 6 P.M. is much too long for children to work, and that a Continuation School Act which took his industrial *protégés* away from him for a few hours a week, even if 'twere but to rest, would be performing a service to the country.

Germany's law of compulsion in regard to school attendance extends in some places to both parent and employer. The child must go to the continua-

tion school, and if it fails to do so, both the parent of the child and the employer of the child may be called to account. As is so often the case with common rules, however, when they are directed to objects of obvious value, it is not found very difficult to secure attendance when it has once been made compulsory. A few foolish German parents and a few foolish German employers at first complained. General opinion, however, now runs with the law, and the great mass of parents and employers now recognizes that what is good for the nation is good for the individual.

The compulsory continuation school has found its highest development at Munich, where boys are compelled to attend day continuation schools up to their eighteenth, and girls up to their seventeenth year. The boys are required to attend the school for eight hours a week and the girls for three hours a week. The continuation classes, it should be observed, are conducted during the day, never later than 7 P.M. By judiciously co-opting representative employers for continuation school administration, it is not found difficult to arrange the hours of school attendance in such manner as to suit the exigencies of various trades. Classes are arranged for all the trades and crafts of the city, but the classes are by no means confined to technical training only. General culture is not

forgotten, and the curriculum includes literature, hygiene, and citizenship.

Under the able administration of Dr Kirchensteiner, whose work in Munich has become famous throughout Germany, and backed by that public spirit and liberality in public expenditure which distinguishes German municipal authorities (elected though they are on a franchise which gives extraordinary weight to the well-to-do) from ours, the scheme thus briefly outlined is carried out in school buildings worthy of a great people. I wish that the latest Munich municipal trade school-house (or, for that matter, the Munich municipal public baths, or the Munich municipal public mortuary) could be seen by all our local authorities. The children pursue their work in a beautifully designed building, with the work of good craftsmen for their working environment. The thoroughness which in all his doings marks the modern German is exhibited in careful attention to every detail of school equipment. Where an English school would show a common and ugly door knob, the Munich school doors are furnished with handles which prove that it is realized that Beauty is one with Utility. I confess that as I examined the building referred to, I envied, on behalf of the London constituency which I then represented, the lot of the continuation scholars of Munich.

The policy of thorough, of which I have spoken, was well illustrated by the fact that in the room devoted to the linoleum class was found a table bearing a number of anatomical models. The connexion of these with linoleum was not at first apparent. But surprise gave way to admiration when it was learned that, as linoleum-making is not altogether a healthy trade, the boys working in it were being taught not merely to make linoleum, but to take care of themselves while making it.

In the year 1908, impressed by the growing educational handicap which our grave neglect is imposing upon British children, I introduced into the House of Commons a Bill which sought to establish here the Munich continuation schools system. With some slight emendations I again introduced the measure in 1911. The Bill begins by raising the minimum age of exemption from school attendance to 14 years. The Bill then proceeds to provide that every child whose age exceeds fourteen but does not exceed seventeen years shall be deemed to be a "continuation scholar," and that every education authority shall establish classes for the continued education and technical training, without fees, of all continuation scholars in its district who do not attend approved day secondary or day technical schools. The continuation school is to be carried on at

hours which do not terminate later than seven o'clock P.M., and every continuation scholar is to attend the continuation school for a period of not less than eight hours per week, for not less than forty-four weeks in each year.

The clause defining the nature of the instruction to be given runs: "Sufficient school places, and sufficient teachers, scientific and technical apparatus, material, tools, or plant, et cetera, shall be provided to enable every continuation scholar controlled by the education authority to be instructed in industry or agriculture, or in domestic economy, in the English language and literature, in the principles of hygiene, and in the duties and obligations of citizenship, and the scheme and curriculum of each continuation school shall be subject to the approval of the Board of Education."

With a view to interesting employers in the technical part of the school curriculum, and to aid the education authority in arranging the class hours to suit the circumstances of the industries concerned, the Bill provides that the authority may co-opt local employées for the purposes of the administration of the measure. The element of compulsion is exercised by providing that every employer must allow the young persons in his employ time to attend the school.

For all practical purposes, the scheme of this

Bill is the scheme of the Munich continuation schools. Let that be borne in mind by anyone who is inclined to condemn the scheme as too drastic. It will be observed that in one important respect my Bill goes further than the German scheme referred to. It places boys and girls on the same level, whereas the Munich system treats the girl as an inferior. I think there can be no question that the common assumption that a girl needs less training and educational solicitude than a boy is a profound error, fraught with far-reaching consequences to the nation. It is fully as necessary for the girl as for the boy that the period of adolescence should be bridged by the continuation of school life. A girl factory hand of to-day is, in a large proportion of cases, largely unfit to fulfil the duties of wife or mother; and to resign to the brutality of competitive industry the greater part of the mothers of the future without continuing their training during adolescence and on the threshold of womanhood, is to deliver the nation to moral and physical decrepitude.

It should also be observed that I propose that the cost of the continuation schools shall be an Imperial charge. In no other way could such a Bill be made tolerable to local education authorities, who, as has been observed above, in some cases allow half-timers to be made of children who have

not passed the fifth standard, and who already complain bitterly of the cost of education. It may be estimated that about 2,000,000 continuation scholars would have to be provided for, and I do not think the average cost per student should be estimated at less than £3. Even so, the annual cost would be £6,000,000, exclusive of any new buildings required. As the national income now approaches £2,000,000,000, it is apparent that the price of this radical reform is insignificant either in relation to our wealth or in relation to the enormous benefits it would confer. Moreover, the cost would be not so much an expenditure as an investment—an investment which, in the course of not many years, would yield interest a thousandfold in raising alike the standard of life and the quantity and quality of British material production.

XIX

GERMAN SCIENCE AND GERMAN TRADE

A GREAT deal has been said about German "pushfulness" in trade, and certain it is that pushfulness has had much to do with the success of German exporters. But pushfulness, after all, is not altogether an admirable quality, and we must not make the mistake of deeming it the chief element in German industrial success. We shall do well rather to dwell upon that wholly admirable thing, German devotion to science.

I invite consideration of the following facts.

EXPORTS OF ANILINE AND OTHER COAL-TAR DYES BY GERMANY AND GREAT BRITAIN, 1910

	£
Germany . . .	9,500,000
Britain . . .	336,000

It is quite clear from these figures that in the coal-tar dye industry we are out of the running with Germany. What is the explanation? I am

told that at Brighton a "Tariff Reform" lecturer has been instancing this industry as one which Germany wrested from this country through Protection. The facts as to the relation of Protection to the German industry are amusingly at variance with this representation.

The following is an abbreviated extract from the German Customs Tariff:—

	Rate of Duty.
Aniline and other coal-tar dyes, including alizarine . . .	Free
Indigo, natural and artificial . .	Free

Thus, in this particular industry Germany and Britain alike enjoy Free Trade. If any British manufacturer cares to send aniline dyes to Germany, the German importer is not harassed by a duty. Not only so, but Germany even admits free of duty natural indigo from India to compete with her own wonderful artificial indigo.

It is clear, therefore, that Protectionist duties do not explain the above figures. Still less do they explain the fact that in 1910 the United Kingdom which, as I have shown, exported only £336,000 worth of coal-tar dyes, had to import about £1,500,000 worth of coal-tar dyes, chiefly from Germany.

If the Tariff "Reform" lecturer looks a little

further he will find that Spain levies on coal-tar dyes a duty of £2, 12s. per cwt. Yet, strange to say, we import coal-tar dyes not from Spain but from Germany.

The explanation of the German triumph in this particular industry is one which we shall do well to ponder. Although a German chemist was the first to notice that a brilliant colour was produced by the treatment of aniline (a colourless liquid derived from benzene, which is a product of the distillation of coal-tar) with alkali, it was an Englishman, Perkin, who, in 1856, produced the first practical aniline dye, and another British citizen, Pullar, who was the first to employ it in dyeing. If Perkin had lived in a country where he could have called together experimental chemists with faith in science, and capitalists who did not regard scientists as dreamers of idle dreams, we might thus have had a magnificent coal-tar dye industry to our own benefit and to that of the world at large. As things were, Perkin lived in a country where, even to-day, Sir Oliver Lodge finds it necessary to write to *The Times* begging the leader-writers of that paper not to represent to the public that scientists are mere speculators. So Germany and not Britain built upon the work of Perkin, and persevered with it until at this hour the world's dyers almost exclusively use coal-tar

dyes. From benzene, naphthalene, anthracene, phenol, and other products of the destructive distillation of coal-tar, German chemists have placed at our disposal a range of colours as wide as the spectrum itself. We have German colours about us, on our persons and in our homes, all the day; Germany may be said to be the colouring agent of the modern artificial world.

Through the German chemists, the cultivation of madder-root has almost ceased, and that of the indigo plants largely contracted. In 1868 Graebe and Liebermann produced artificial alizarine from anthracene, the first time that a vegetable colouring matter had been produced synthetically in the laboratory. The alizarine colours are not only beautiful but permanent, and the production of artificial alizarine, a triumph from the laboratory point of view, was a most important thing for industry. In 1870 another German, Baeyer, produced artificial indigo. His methods have since been improved upon by other Germans, and to-day the use of natural indigo has shrunk to very small proportions. Some nine-tenths of the indigo used by the world is artificial Indigo from German factories. A few years ago India exported indigo worth several million pounds a year. To-day the Indian export has fallen to about half a million, and, as I have shown, the

Germans admit Indian indigo free of duty, to compete, if it can, with the synthetic product of science.

Of the alizarine dye-stuffs we import from Germany about £250,000 worth a year; of artificial indigo we import from Germany about 150,000 a year. Rapidly our imports of Indian indigo are falling, as the artificial indigo gains ground even in this conservative country. "Revolution!" says Lord Rosebery, as he gazes in alarm at some mild land taxes not nearly as drastic as those of Germany. I wish he would open his eyes to the revolution which science is making in the industrial world. If I mistake not, however, Lord Rosebery once confessed that he knew nothing of modern science. Quite so; it explains a good deal.

Two minor points should be mentioned. The first is that our stupid restrictions on the use of industrial alcohol did something to "crab" the British aniline dye industry.

The second is that it has been pointed out that if we had had all along the Lloyd-George Patent Act, the Germans would have had to work their dye patents here, and so we should have had the benefit of German brains forced into our service. Well, I suppose that would have been better than nothing, but really it is a very unsatisfactory solution. One can hardly take the same pride in an

industry established by virtue of an amendment of the Patent Law as in an industry born of native discovery and invention. It is mortifying to reflect that when German chemical-works are established here they will have to be officered by German industrial chemists.

It is not British brain which is at fault, but British education. British brains have sufficiently vindicated themselves in the scientific world, and what has been and is still lacking is a wider scientific education. It should be most obvious that if natural gifts are fairly equal in the two countries, that country will produce more scientific discoveries which gives the good gift of a scientific training to its people. The sum of acquired knowledge of the nature of things is now very great, and however gifted an individual might be, he has no chance to advance in the command of Nature unless he has a good grounding in what has been already accomplished.

A few men know how great is the control of Nature which man now possesses. If all men understood, there might soon be an end of disease and of material poverty. It should be the first object of the statesman to see to it that the new generation is given understanding. In the meantime, Germany has compulsory continuation schools, and we have—a report.

XX

"THOSE WHO LIVE IN GLASS HOUSES"

THERE are several trades, important if not all-important, in which our imports exceed our exports, a fact which at once suggests that we are but moderately successful in them. These trades are often seized upon by Protectionists in support of the proposition that we need only import duties in order to place us in the front rank. We have just dealt with the coal-tar dye industry, in which Germany is easily first, while we are nowhere. Let us pursue the point further, for we must constantly bear in mind that, in a unique degree, the British people are dependent upon imports for their wealth, and that there is only one enduring way to gain the imports which sustain our people, and that is to put intelligent work into exports.

I now direct attention to the following facts :—

BRITISH AND GERMAN GLASS EXPORTS

	1910
British	1,568,000
German	4,990,000

It will be seen that the German lead in glass exports is very great. The disparity, it is true, is not so great as in the case of coal-tar dyes, but 'twill serve. Germany exports about three times as much glass and glassware as the United Kingdom.

Austria-Hungary, Belgium, and France, as well as Germany, lead us in this branch of industry. The Austrian and Belgium exports of glass and glass-ware are in each case nearly twice as great as ours.

I may add that the case generally is that the Germans, Belgians, and Austrians have obtained the lion's share of the European glass trade.

To round off the statement of fact, I give the latest figures relating to United Kingdom imports and exports of glass and glass-ware :—

UNITED KINGDOM, IMPORTS AND EXPORTS OF GLASS

	Imports for Home Consumption.	Exports of British Manufacture.
	£	£
1907	2,972,000	1,400,000
1908	2,705,000	1,355,000
1909	2,727,000	1,372,000
1910	2,866,000	1,568,000

The Protectionist remedy for these figures is to clap on import duties. That is to say, the Protec-

tionist believes that by raising the price of bottles, jars, window-glass, domestic glass, and all other varieties of glass, the British manufacturers would be able to do some of the trade, if not all the trade, which Germans and Austrians and Belgians now enjoy in the British home market. But to tax glass would be to injure the trades, and they are many, which buy glass for use as an industrial material. To tax those pretty and clear white, although cheap, jam jars which we import would be to strike a blow at our important preserve trades, and through them at fruit-growers. To tax foreign window-glass would be to make houses by so much dearer, and to strike a blow at employment in the building trades. The Protectionist too often overlooks the fact that you cannot give a duty to one trade without injuring other trades.

Is there nothing else to be done? Is there no help for the glass trade but to put on clumsy import duties to raise prices and injure everybody who buys glass? Fortunately or unfortunately, as in the case of the coal-tar dyes, there is a simple explanation of our inferior position in the glass industry, and a simple remedy available.

It seems to have been borne in upon some persons interested that there are more things in earth than are known to the home industry, for in 1902 the Technical Instruction Committee of the Stafford-

shire County Council sent their glass instructor, Mr Frederick Carder, of the Wordsley School of Art, to Germany and Austria, with instructions to visit the great glass-making districts and report the result of his observations to the sub-committee for the trades of South Staffordshire.

Mr Carder in due course reported, and unfortunately the Committee thought his report too long to be printed in its entirety. They printed some extracts, however, in the form of a not very handsome pamphlet. (I venture to express the opinion, in passing, that a German Technical Instruction Committee would have printed a more artistic document; this is not a small point, for a sense of beauty should pervade a district so many of the productions of which can only find a market through line and colour, "A little more, and how much it is, a little less, and how far away.")

Mr Carder was much impressed by his travels, and returned to sing the praises of the Continental glass-makers. It is unfortunately only too clear from what he says that the home manufacturer allowed himself to fall behind sadly in method. At every point we find our Staffordshire inquirer contrasting British and Continental methods to our disadvantage.

Take the matter of the furnace, so all important in the trade. Mr Carder says:—

> "Take, for instance, the regenerative gas-furnace of Frederick Siemens, which not only permits the attaining of temperature quite inaccessible in the old style of furnace still used in England, but also lends itself to the use of a very poor fuel, such as a low-class lignite or brown coal. This furnace made it possible to introduce the glass industry as remunerative occupation for the people in districts where it had not previously been able to exist. . . . In Austria, out of 176 firms manufacturing all kinds of glass, there are 157 furnaces worked by gas systems, and only 65 furnaces with the direct firing of either coal or wood, which is invariably used in England. In Germany out of 341 firms, there are 603 furnaces worked by gas, and only 94 furnaces with direct firing."

And then Mr Carder goes on to say,—

> "In all the English houses making table glass to-day, not one of them is using gas furnaces; they are working with the same old style of furnace that has been in use for the past hundred years."

This makes bad reading from a British point of view. So does the fact that Mr Carder says that a German glass-house is quite bearable, and "free from the vile smoke, the insufferable temperature,

and the still worse effects of sulphur which are always in evidence in English glass-houses." So does the following passage: "At Ehrenfeld, near Cologne, a machine was in use for melting the tops of wineglasses, tumblers, etc., at the rate of 3000 an hour. What English factory could work one-third the rate?"

I might multiply these details, but let me sum it all up in the following sentence from the report, which goes to the root of the matter:—

"Every improvement that comes out in any way affecting the manufacture is immediately adopted, and in any difficulty specialists, such as chemists and engineers, are at once called in."

In a word, the German glass industry employs science, while we are apparently content to make glass by rule of thumb. Those who work in glass-houses need, not import duties, but efficiency, and it is worse than useless for them to go on stoking the furnaces of a bygone age while throwing stones at Free Trade.

XXI

OF THE EXPORTATION OF A USEFUL MAN

MY preceding article on the British glass industry, like that on the matter of coal tar dyes, brought me a great deal of correspondence, all of which went to confirm and illustrate the moral which I endeavoured to point.

One reader, who was intimately acquainted with the circumstances of Mr Carder's visit to Germany and Austria, and his subsequent report to the Technical Instruction Committee of South Staffordshire, informed me that, while the report was mutilated and very poorly circulated in this country, it was not without benefit to someone.

The American glass trade heard of Mr Carder and of his report. They learned that he was the glass instructor of the Wordsley School of Art, and that he was a designer of such merit that some of his work had been copied by the Germans. They promptly invited him to take charge of a large glass works in

the United States. My correspondent goes on to say:—

"This country was too 'poor' to keep him and he went, so that both his own town of Wordsley and the county in which he taught lost the benefit which might have resulted to them from his travels in Germany. We are not only then 'content to make glass by rule of thumb,' but we are willing to let our prophets and seers be bought up by our competitors. We save ourselves in this way much worrying about new ideas, and it is easier to become a Protectionist in the sense of wanting to keep out other folks' improved products than a Protectionist in the true sense, that of protecting ourselves by manifest superiority over all rivals."

Such was the melancholy sequel to the belated enterprise of the Technical Instruction Committee of the Staffordshire County Council. They paid for Mr Carder's journey, and Mr Carder went, and saw, and was instructed, and was promptly snapped up by the Americans.

This is matter to give us pause. What is Staffordshire built on? What gives it the power to turn clay into earthenware and silicates into glass?

The answer is, of course, coal. Without coal, Staffordshire would be a poor agricultural com-

munity, like Wiltshire or Ireland. With coal and intelligence Staffordshire could do anything, for coal is Power, and Power, properly applied, is Wealth. What I want to know is this, was there not coal enough in Staffordshire to buy the services of Mr Carder?

Given plenty of cheap coal, and it is impossible altogether to fail. There is any amount of rough work to be done with coal power the proceeds of which can be sold. But it is not enough merely to exploit cheap coal. The glass trade and the pottery trade above all, demand the exercise of the higher faculties. I am amazed at some of the contents which the average china shop derives from Staffordshire—stuff which deserves the hammer of an artistic Mrs Carrie Nation. Does Staffordshire suppose that such wares, whose form is an outrage and whose colour is unknown alike to Nature and to Art, can find a market save in towns from which beauty has been banished, or amongst untutored savages?

It is good to have coal, but it is not enough to have coal. The glass trades and the pottery trades need to call in Art and Science to their aid—Art and Science, the twin sisters of intelligent industry.

It is appropriate that I should pass thus from

glass to pottery. It is true that in the case of pottery, our exports are larger than our imports. It is also true that in the higher forms of pottery our imports exceed our exports. If you see in a street in London or elsewhere a shop window containing a display of artistic earthenware, such as a person of taste could house, you may be quite sure that the greater part of it is foreign. I am not unmindful of the few British houses whose names stand high in the ancient art of the potter. I refer to the average case when I say that the "artistic" productions of modern Staffordshire are beneath contempt.

The manufacture of pottery calls for a curious combination of qualities. The scientist is needed, for in one sense the earthenware trade is a chemical trade. The artist is needed no less. We have coal, and some of the finest china clay in the world. We have, or might have, industrial chemists, and I think we are not deficient in decorative artists. What is wanted appears to be such a concentration and co-ordination and leading forth of native faculties as may properly be dignified with the name of Education.

According to Dr Rose, Germany has four special ceramic schools situated in the midst of the industries they are founded to promote. These schools train young people for future positions as

managers, foremen, painters, and modellers. The institutions are now much appreciated and warmly supported by the German pottery manufacturers, but it is interesting to observe that it was not always so. Take, for example, the school at Hohr, in Prussia, which was founded in 1879. At first German potters were as insensible as their own clay to the advantages of the school. They resented any interference with their methods and refused to contribute towards its support. Then a few of the works found, to their surprise, that some of the school designs which they condescended to experiment in were much admired and found a ready market. So prejudice was gradually broken down, and now all agree that the school is for the great benefit of the industry.

These German pottery schools are warmly supported by the State and given such ample State subsidies that the fees are purely nominal. The fees at the Hohr school are only £1 a year, and it may be worth while to mention that foreigners are admitted to the school for a fee of £7, 10s. a year. An evening school is carried on, the fees of which are only 4s. a year. Specially talented, industrious or indigent pupils are wholly or partly absolved from the payment of fee. All necessary drawing and modelling materials, chemicals, apparatus and

tools are supplied by the school without charge. The full list of subjects is as follows: Drawing, Painting, Modelling, Workshop Practice, Chemistry, Physics, Mineralogy, Geology, Ceramic Technology, and calculation.

So blind is the Protectionist to such facts as these that in 1904 a Protectionist potter wrote to "The Times" claiming that tariffs alone give the clue to the position of the British pottery industry, and also claiming that British pottery and British potters are the best in the world. He even alleged that British potters had generations of experience behind them, while the Continent was plunged in ceramic darkness. This, in spite of the fact that the art flourished in Germany, France and Italy generations before it attained any proportions here. The pottery industry is a wide one, and covers a large variety of articles. In producing ordinary domestic earthenware Staffordshire does well, but my point is that it is necessary to bring to the aid of pottery manufacture in Britain a more widely extended technical skill and a more general devotion to purity of line and colour.

And there is something more. Staffordshire pottery-works have an unenviable prominence in the reports of the Factory inspectors. Many of the factories are old and dilapidated, and the Lady

Factory Inspector has told us that in almost every pottery she has found unsuitable or defective insanitary conveniences. These things are incompatible with the efficient production even of mousetraps.

XXII

WHY PRICES HAVE RISEN

IT is a curious thing that we discuss so little matters which supremely concern us. At any given moment a nation will be found talking chiefly about a particular subject which is the fashion, and which will not necessarily be the thing of most importance to its people. There is sometimes no more reason for the concentration of discussion upon a certain topic than there is for a woman to assume a particular shape at the dictation of Parisian authority.

For example, if I had to name one of the things which has chiefly affected the people not merely of this country, but of all the world in varying degree, in the last fifteen years, I should unhesitatingly name the rise in prices as an outstanding thing. It has affected us all, rich and poor, but the poor it has particularly affected, diminishing the value of their labour by returning them less for their money wages. In the United Kingdom, since 1900, wholesale prices have risen by about ten per cent. Yet how little the

rise in prices has been discussed seriously by public men, and how little attempt is made to understand it.

As to the small amount of discussion which has taken place, there has been remarkable content with superficial consideration. The main explanation offered has been, and it has been thankfully accepted by those who desired to be saved the trouble of thinking, that the gold supply of the world has very greatly increased of late years. Here are the facts, on that head :—

GOLD PRODUCTION OF THE WORLD

	£
1860 . . .	27,900,000
1865 . . .	24,600,000
1870 . . .	27,000,000
1875 . . .	20,300,000
1880 . . .	22,200,000
1885 . . .	22,600,000
1890 . . .	24,700,000
1895 . . .	41,400,000
1900 . . .	53,000,000
1905 . . .	79,200,000
1910 . . .	94,800,000

Now it is obvious that, as our prices are measured in gold, the great increase in the world's gold supply must affect price. If prices

are measured in gold, and the supply of gold greatly increases, then the amount of commodities purchasable by a given quantity of gold must decline, other factors remaining the same. But it is pushing the gold argument too far to assert that the whole, or even the main part, of the recent rise in prices, has been due to the increase in gold supply.

MOVEMENT OF WHOLESALE PRICES IN THE UNITED KINGDOM SINCE 1895

PRICES OF 1900 = 100

	1895	1900	1910
Coal	56	100	70
Pig-iron	57	100	81
Cotton	74	100	156
British Wool	127	100	167
Foreign Wool	85	100	107
Jute	75	100	107
Wheat	86	100	118
Maize	101	100	122
Rice	95	100	93
Beef	93	100	105
Bacon	93	100	166
Eggs	98	100	124
Tea	113	100	96
Cotton Seed	72	100	109
Petroleum	87	100	75
Rubber	81	100	219
Hides	90	100	135

A very simple consideration will prove this point conclusively. The foregoing table gives an account of the rise in prices in this country in a variety of articles.

It will be observed that while all these prices have risen, there is a very great variation in the amount of the rise. *This could not be the case if the gold supply were the dominant factor in the rise, for all these prices are gold prices, and if the gold factor dominated, then there would be an all-round rise of almost equal proportions for each gold price.*

If we pursued the inquiry into other commodities, we should find just the same erratic character in the movements. Every, or almost every, commodity has risen, but the increments in price are exceedingly uneven.

I offer with considerable confidence my own suggestion as to what is the dominating factor in the world-wide rise in prices.

The explanation—and it is one of supreme importance—is this. During the last fifteen to twenty years there has been an enormous increase in the productive power of mankind as a whole. Power machinery has been utilized upon the world's resources to an extent which can only be described as gigantic. Fields, mines, and forests have been worked as they have never been worked before, at

a rapidly accelerated pace. This could not proceed long without the world as a whole soon coming to feel the inevitable results. Forests were razed, and timber got dearer and worse in quality. Rubber-trees were sapped without replacement and rubber scarcity followed. The Malayan tin mines were creamed of their best, and tin became dear.

Accompanying the process of ever accelerated exploitation of limited resources, went the rapid expansion of civilization. Year by year the standard of life of millions of people and their consequent desire for commodities has grown. There has been enormous emigration from lands where wages are low and where poor foods are eaten to lands where wheat and meat are common fare. Demand has increased much more rapidly than supply even in cases like wheat, where there has been considerable extension of crop area. Thus, the broad picture is of a world, of resources far from unlimited, not paying sufficient attention to conserving sources of supply, and dealing with natural resources as though they presented an indefinite field, instead of a very limited and definite field, for exploitation.

This general explanation covers the whole ground, and has application to most commodities, but it applies to them in varying degree, and hence the great variation in the rise of different com-

modities exhibited in price tables. Thus, mine exhaustion has raised the price of both iron and tin, but iron has not risen as much as tin, because the supplies of the former are much greater than those of the latter.

It is of the first importance that these things should be clearly realised. If they are not realised we may be faced before long with an even greater rise in prices, and, indeed, with something approaching a famine in many indispensable, or next to indispensable things. The case of metals is exceedingly important because a mine has harvest without seed-time. We can easily replant rubber and make rubber as cheap as we please; we cannot replenish an exhausted mine. Unless science vigorously comes to the aid of industry, the trend of metal prices must be upward. Tin, for example, is now worth about £200 a ton, and is well on the way to becoming a precious metal. There may be an iron famine within thirty years.

If the explanation I have offered is the true one, then the world will not regain the lower prices of twenty-five years ago until it applies scientific conservation to its resources.

XXIII

THE RISE IN THE POVERTY LINE

IN his well-known study of town life entitled "Poverty" Mr B. Seebohm Rowntree, worked out an arbitrary poverty line by ascertaining the minimum cost upon which a family of five persons could be maintained in a condition of physical efficiency. The calculation, which has already been briefly referred to in these pages, related to York and to the year 1899.

He showed that for a family of father, mother and three children the lowest possible sum upon which bare physical efficiency could be maintained was 21s. 8d. per week made up thus:—

	s.	d.
Expenditure on Food	12	9
Rent and rates	4	0
Clothing, including Boots . . .	2	3
Fuel	1	10
Lighting, furniture, crockery, etc. . .	0	10
	21	8

With regard to the diet, it should be explained that the standard adopted by Mr Seebohm Rown-

tree was rather less generous than that required by the workhouse dietary prescribed by the Local Government Board. Such luxuries as butchers' meat and butter were barred, and nothing, of course, was allowed for alcohol. As for sundries, nothing was allowed for books or newspapers or any miscellaneous expenses whatsoever. The poverty line assumed that the head of the family was not merely an economic man, but a scientist well versed in the mysteries of proteids and fats and amyloids. The 4s. 11d. for clothing, light, fuel, etc., was made up as follows :—

	s.	d.
Clothing	2	3
Fuel	1	10
Everything else . . .	0	10

Working in 1899, the year of exceptionally good trade, Mr Rowntree found that ten per cent. of the population of York were living in "primary" poverty, defined as the possession of an income too small to command the above standard of life and that a further twenty per cent. were living on, or just above, the poverty line.

A good many years have elapsed since Mr Rowntree wrote his invaluable book and in these years the cost of living has increased considerably. At the present time (1912) food costs about 15 per cent. more than it did in 1899. This fact makes

a serious difference in Mr Rowntree's figures. He put down 12s. 9d. a week for food, the same amount of food would now cost about 14s. 8d. Rent is very much the same as in 1899. The other items taken together have perhaps increased ten per cent., raising their cost to 5s. 5d. per week.

In 1912, therefore, Mr Rowntree's primary poverty line is approximately as follows:—

	s.	d.
Food	14	8
Rent	4	0
Clothing, fuel, light, etc. . .	5	5
	24	1

That is to say, a family with 24s. 1d. in 1912 is in the same position as a family earning 21s. 8d. in 1899.

It is to be feared, therefore, that the proportion of people living in poverty has increased since 1899, since, although wages have risen, they have not risen as greatly as the cost of living. The rise in money wages since 1899 has been about 6 per cent., which has only covered part of the increase in costs.

Take the case of the "average" railway servant. In 1899 he earned 25s. 3d.; in 1909, 25s. 4½d., a

rise of 1½d. a week. Let us see how the variation in the cost of living has affected these figures.

To judge from investigations which have been made from actual family budgets, the proportion of small incomes spent on food is larger than was allowed by Mr Rowntree in his poverty line, the sundries being correspondingly reduced. I think we may take it that in 1899 about 16s. per week of an average 25s. income was spent on food. The same amount of food in 1909 cost about 18s. Let us assume rent to be 4s. 6d. and stationary in the ten years, and let us suppose that the remaining items rose ten per cent. In 1909 the railway man would need, to give him the equivalent of 25s. in 1899, the following :—

	s.	*d.*
Food	18	0
Rent	4	6
Sundries	5	0
	27	6

At the present time he would need an even larger sum than 27s. 6d. to give him the equivalent of 25s. in 1899. Thus, the wages of railway servants expressed in commodities, *i.e.* the real wages as distinguished from the money wages, have experienced a considerable fall since 1899, and the slight increases gained under the concilia-

tion scheme have been not nearly sufficient to atone for the loss.

What is true of railway earnings is true, *mutatis mutandis*, of all other employments.

Now let us remember that we are in the twentieth century, in a country which boasts of its colonies and its trade, of its power and prestige, of its wealth and influence, and of I forget how many ministers of religion. Let us imagine a poverty line for an average family of a man, his wife, and three children, drawn as modestly as this :

Per week for	*s.*	*d.*
Rent and rates	6	0
Food	18	0
Clothing, including boots	4	0
Fuel	2	6
Lighting, furniture, ironmongery, crockery, soap, soda, etc.	2	6
Amusements, including holiday	1	3
Fares	1	0
Drink, tobacco, newspapers, books, and pocket money	1	6
Trade Union and Friendly Society	1	0
	37	9

This extravagant expenditure means the earning in a year of £98, 3s. But no man is able to

work every week of the year, and, if we imagine the workman to miss only four weeks in fifty-two because of sickness, holidays, unemployment, etc., we see that he has to earn £98, 3s. in forty-eight weeks, which means that he must earn nearly, £2, 1s. per week.

But, of our 8,000,000 to 8,500,000 adult workmen, less than 1,000,000 earn £2, 1s. a week while in work.

So that, if we draw a poverty line at a very modest scale, a scale which compels thrift in the expenditure of every penny, we see what a very small proportion of our population is above it.

When it is remembered how great is now the power over natural forces possessed by mankind, the facts we have reviewed amount to an indictment of our organization for work, of our production, and of our distribution. It is an indictment which is not to be answered by levelling reproaches against the chief sufferers in the existing scramble.

XXIV

"GIVING EMPLOYMENT"

A CORRESPONDENT having asked me to deal with some comments which were made in an editorial article of a London newspaper upon the speech delivered by Mr Lloyd George at the City Temple on 17 October, 1910, I gladly did so, for the points raised were of considerable importance. I said—

In the first place, the "Daily Mail" joins issue with Mr Lloyd George's assertion that the "idle rich," with their "retainers," number some 2,000,000 of people. In refutation of Mr Lloyd George's 2,000,000, the "Daily Mail" calls in evidence the calculation of the present writer ("Riches and Poverty") that in 1903-4 there were no more than 250,000 persons in this country drawing incomes of over £700 a year. Unfortunately the "Daily Mail" forgot to state my statistics completely for the benefit of its readers. It should have added that I calculated that *the* 250,000 *persons with incomes over* £700 *a year draw an income approaching* £600,000,000 *per annum.*

These amazing figures are confirmed in "Riches and Poverty" (edition 1910). A moment's thought will show that the spending of such an enormous income by such a few people necessarily leads to the enlargement of the trades of idleness and luxury, and to the contraction *pro tanto* of the trades of necessity.

It is a very difficult matter to estimate how many people are inducted into the service of idleness by the enormous aggregate income of the British rich, but I can say at once that Mr Lloyd George's 2,000,000 is altogether too small an estimate. In the first place, the 250,000 rich people with their families number about 1,250,000 men, women, and children, and upon these there attends a host of people who do hand-service. If we merely add personal "retainers" and flunkeys to the 1,250,000, we get a figure well over 2,000,000. But at that point we have only touched the fringe of our estimate, for workers who nominally follow useful occupations are told off by hundreds of thousands to gratify the whims of rich people. A bricklayer, a carman, an engineer, or a house painter, may have his labour turned into the channels of waste at any moment by the expenditure of the rich which calls him to labour upon the appanages of luxury. At the smallest estimate, the British rich and their "retainers" must number many times

2,000,000. My calculation, therefore, which the "Daily Mail" brings in evidence against Mr Lloyd George, so far from proving Mr Lloyd George to have been guilty of over-statement, merely shows that he very much understated the facts of the case.

But of far greater interest than this matter of numbers is the following passage from the "Daily Mail's" leading article :—

> "There is perhaps no subject upon which so much nonsense has been talked by agitators as that of the 'idle rich.' We have shown that they represent only the smallest fraction of the population. It is a further fact that they can only use their money in two ways, by investing it, when they supply industry with capital, its very life blood, or by spending it. In either case they must employ labour."

The "Daily Mail" is perfectly right when it says that the rich are the greatest direct employers of labour. Of course they are; that is the mischief of it. Somehow or other, the rich have got to get through their £600,000,000, and, as the "Daily Mail" says, they either invest it or spend it.

First, as to investment. The supply of capital to a nation is a most important function, and one

which demands the most careful consideration. Can it be alleged that the small group of people who have the only chance to add to the nation's capital in any considerable degree use that chance wisely or patriotically? We are generally agreed that our shores must be defended, and the rich, in particular, clamour for an enormous navy. That is one form of *investment*. It is not a little strange, therefore, that we never hear of patriotic persons voluntarily contributing as much as a gunboat to the Royal Navy, and as for their legal contributions, we all know that their representatives in Parliament do their very best to save them from contributing at all.

To pass to another and more important form of investment—Housing. If our rich invested their capital with an eye to the welfare of the nation, there would not be a housing question. The sordid streets of our great centres of population cry aloud for capital, and out of £600,000,000 a year the rebuilding of England might be child's play. Generally, the savings of the rich, even in current forms, are far too small, and the outstanding fact about our national accumulations is not, as some people think, their magnitude, but their paucity. Of course, we must not forget that the rich investors are preyed upon by a host of sharks who are counted amongst their "retainers." Thus

in 1910 many innocent but greedy rich people have put their money into rubber companies capitalized at up to £100 an acre! Thus the nominally "busy" help the avowedly idle to squander national capital.

I must pass to the second count—that when the rich spend money, they must employ labour. The "Daily Mail" forgets to inquire how the labour is employed. So easy it is to forget that many forms of employment are tantamount to unemployment. The call upon the trades of necessity by the rich can obviously be but small. An inequitable distribution of wealth consequently takes workers from the trades of necessity and makes them, in effect, idlers. An enormous class of non-producers and of producers of superfluities is called into existence. The "Daily Mail" can only see that these people are "employed." The "Daily Mail" has got no further than a certain Lord Bishop of Manchester who, in 1879, had a bout with John Ruskin on the subject of usury. In the following words Ruskin dealt very effectively with cant about "giving employment":—

> "I cannot easily express the astonishment with which I find a man of your lordship's intelligence taking up the common phrase of 'giving employment,' as if, indeed, labour were the best gift

which the rich could bestow on the poor. Of course, every idle vagabond, be he rich or poor, 'gives employment' to some otherwise enough burdened wretch, to provide his dinner and clothes for him; and every vicious vagabond, in the destructive power of his vice, gives sorrowful occupation to the energies of resisting and renovating virtue. The idle child who litters its nursery and tears its frock, gives employment to the housemaid and sempstress; the idle woman who litters her drawing room with trinkets, and is ashamed to be seen twice in the same dress, is, in your lordship's view, the enlightened supporter of the arts and manufactures of her country."

But let us take the matter further. The "Daily Mail" goes on to say—

"Mr Lloyd George tells us that the employment they afford is 'unproductive'—a vague word—and that the labour it engrosses should be diverted to more profitable industry. Here we may well ask him to what industry he would divert the labour of two million persons. Where is there room in British industry for them?"

There is a very cogent answer to the "Daily Mail," and it is this. With a better distribution of

wealth, with better paid labour, and a smaller haul for the rich, employment would not be reduced, but healthily diverted from trades of superfluity to trades of necessity. An addition of £100,000,000 to the wages of the working classes, and a corresponding fall in the incomes of the rich from £600,000,000 to £500,000,000, would mean fewer "retainers" and more useful workers. The more honourable trades would be stimulated; the less honourable trades would suffer. The consequent gain to the nation would be that *a larger part of the national income would be expressed in things which are a real addition to its wealth, and a smaller part expressed in things which are often a deduction from its wealth.*

Such a change would not merely be an advantage from a material point of view. By strengthening the great mass of the people, it would fit them to be better producers. By reducing the call for "retainers," it would strengthen the national character by diminishing the worship of wealth. There is perhaps nothing more mournful in our society than the spirit of flunkeydom which is created by the rich in their royal progress. I do not like to see, for example, the railway porter leave the overburdened, poor woman to shift for herself while he hastens after the tip of the first-class passenger. I do not like to see little boys doing caddie when they ought

to be at school. I do not like to think that tradesmen are polite in direct proportion to business done. I do not like to perceive how many millions of people have been trained to respect men, not for what they are, but for what they have.

XXV

"KIPPERS FOR FATHER, TWOPENCE"

HOW unfortunate it is that our newspapers are printed upon perishable paper. Although, as Napoleon is said to have said, "Posterity has done nothing for us," we are every day doing things for the amazement and amusement of our posterity; and since it is not very much trouble for us to leave records for the edification of generations to come, it may be respectfully suggested to newspaper proprietors that they should buy good linen-rag paper for the printing on lasting material of the copies which are furnished to the British Museum in accordance with the law.

If posterity, for example, ever has the opportunity of perusing the "Westminster Gazette" of 1 October, 1910, and the "Woman's Supplement" of "The Times" of the same date, I hope that posterity will not fail to notice (1) an article entitled "Little Housewives" on page 6, column 3, of the former, and (2) an article entitled "Country House Breakfasts" on page 7, column 1, of the latter.

The "Westminster" article is an ecstatic description—and I fully share the enthusiasm of the writer—of the domestic economy lessons now being taught in London County Council schools. 60,000 London girls are acquiring the elements of cookery, laundry, and housewifery in order that the unnecessary drudgery to which in due course they will succeed as an inheritance (there are *death duties*, by the way, connected with this inheritance, but lives are very cheap) may be done more thoroughly than at present. The writer of the article gives us a specimen *menu* for a breakfast "at which six people are to be fed for sixpence, or eightpence with father." Here it is :—

	Pence
3 teaspoonfuls tea @ 1s. 4d. lb. .	¾
¼ lb. sugar @ 2d. lb. . .	½
Milk	¾
One loaf bread . . .	2½
¼ lb. dripping, marmalade, jam, or treacle	1
¼ lb. oatmeal @ 2d. lb. . .	½
	6
Rashers, kippers, etc., for father .	2
Total pence	8

Every one will agree that a girl is never too young to learn that whatever is going in the shape

of kippers, rashers, *et hoc genus omne*, is for father. We need not, therefore, dwell upon that. Rather let us remind ourselves that eightpence is not always to be commanded for a family breakfast. The distribution of income being according to the merits of the citizen (if anyone doubts this let him read Mallock), and a large number of us being without merit, seven times eightpence, or 4s. 8d. per week for breakfast only, is entirely beyond the reach of no small part of His Majesty's eaters of breakfasts. When you are a Midland labourer with 18s. a week as a high top-gallant, and when, on the average, you enjoy ten weeks' holiday or more at your own expense in the course of a year, you find that "rashers, kippers, etc., 2d." have to be promoted to your dinner *menu*.

Now let posterity turn to "The Times Woman's Supplement" article on "Country House Breakfasts," which, as luck would have it, was published on the same day as the above delectable bill of fare.

I really want to copy the entire article, and to leave it at that, but I must content myself with the following quotations :—

COUNTRY HOUSE BREAKFASTS

"Breakfasts in country houses must always have a certain likeness to each other whether the

party to be entertained be large or small. There must be a sideboard well covered with cold meat, there must be four or five dishes of hot food. The cold meat must include, a ham, a tongue, and either cold chicken or cold game. If the party is a large one, a galantine, a pie, or some brawn should be added. An agreeable adjunct is a dish of good aspic jelly. . . .

"For hot dishes, poached or fried eggs, bacon, fried potatoes, fried or grilled fish, or kedgeree, and sausages are the classical items. . . . Boiled eggs, each in a separate egg cosy, should always appear. For variety, rissoles, curries, and grilled chickens can be given; cutlets or tournedos are hardly ever touched when they are sent up.

"Tea and coffee continue to be our only breakfast drinks. . . . Good tea cannot be got under 3s. 6d. or 4s. a pound. . . .

"In front of every guest should be butter and and a small pot of jam, marmalade, or honey, between every two places sugar, cream and milk, mustard, pepper and salt, and a rack of fresh toast. Down the centre of the table should be plates of white and brown scones and fresh rolls. One sideboard should be devoted to fruit of any kinds that are in season. . . . Flowers on a breakfast table are rather in the way."

"The Times" writer concludes: "As nothing conduces more to the cheerfulness of guests than a good daily start, it is worth while for hostesses to take trouble to get their staffs into good ways and to keep them working in good order."

It is a misfortune that "The Times" higher education in household economy is denied to L.C.C. scholars. Why should they lack information as to the necessity for a "good start," and as to the components of a "good start"? If tea worth drinking cannot be had under 4s. a pound to give tone to a shooting-party, why is the L.C.C. scholar deluded into the belief that three teaspoonfuls of one and fourpenny are tonic enough for a member of, say, the Boilermakers' Society? One of the boilermakers of the North writes me: "Go along under a ship's bottom for instance (and this is not one of the worst places) and see what is being done by hand rivetters, with rivets above one inch in diameter, and you will be surprised that men can be found stupid enough to do the work at all." I have never observed such work, but I have crouched with miners in a three-feet coal seam, and I have witnessed many other forms of the arduous toil which is the basis of our wealth. For these, O Posterity, let it be written, we reserved our poorest fare. For these the "daily start" in the darkness before the dawn. For these, the ill-contrived meal

in the sordid home, in a place from which the insensate folly of man had scraped away all that was verdurous—in a place which knew the sun only by reflection. Thou, O Man of the Future, who vainly strivest to conjure up a vision of such incompetence and folly, pity rather than smile, and believe that even in the incredible dark days of which Thou readest, there were those who dared, not merely to hope, but to believe, that the World would be well with Thee!

It is the avowed object of the domestic economy classes of our elementary schools to teach little girls how to make a little go a very long way. The assumption is, and under the circumstances it is a very proper assumption, that the majority can hope to have but little, and that, therefore, teaching of economy (economy being falsely interpreted as cheese-paring) is a prime necessity.

What a satire is this teaching upon the triumphs of Progress. Here we are at the end of the first decade of the twentieth century. Watt's steam-engine patent was taken out in 1769. The factory system was established one hundred years ago. The Stockton-Darlington Railway was opened in 1825. Brunel's "Great Western" crossed the Atlantic in 1838. Faraday's discovery of magneto-electric induction was announced in 1831. The nineteenth century saw the powers of man multi-

plied a hundred-fold, nay, a thousand-fold. To-day it is true that if invention and discovery went no further, if science gifted us with no greater weapons, *we have the means of producing in the world, in far greater quantity than we all need, every form of food, every instrument of comfort, every furnishing of culture.*

Yet, in 1910, the Education Committee of the governing body of the greatest city in the world finds it necessary to teach the little girls who are to be the wives of the next generation of workmen, how to make three farthings' worth of milk, three teaspoonfuls of the cheapest tea, a little dripping, a loaf, and a rasher for father, into a meal for six people.

The fact is, of course, that the railways and steamships, the telegraphs and telephones, the engines and machinery, are worked, more or less intermittently, chiefly for the benefit of a number of people in the world so small that if the world lost them the populations of the nations would not sensibly suffer. The fruit of Science is cultivated in arduous and often unnecessary toil by the many, and eaten by the few. Even this statement fails to reveal the exceeding folly of our time. For the complete statement of the case is that Commerce thwarts and denies the work of Science, and uses its gifts unintelligently and sparingly, so that the

fruits of the harvest of work are consequently scanty and poor, and that *it is not merely that a few rich monopolize a great supply, but that they take the lion's share of an attenuated supply.* The Error of Distribution is bad enough; the Error of Production is the prime folly which it magnifies.

XXVI

HOUSING SANE AND HOUSING INSANE

TAKING train at Charing Cross, the traveller can avail himself of the resources of civilization, as developed in the United Kingdom by the South-Eastern and Chatham Railway at the beginning of the twentieth century, by occupying fifty minutes in travelling fifteen miles to reach the place whereof I desire to speak. Not much of entertainment can be offered him during the journey, but the thoughtful mind may be led to speculate on many subjects. Thus, a simple calculation will lead to the conclusion that fifteen miles in fifty minutes is the exact equivalent of eighteen miles an hour, and in the year 1912 one may obtain much comfort from the reflection that great progress has been made in railway facilities in the last eighty years, seeing that in 1825 George Stephenson found himself unable to work up a greater speed than fifteen miles an hour on the Stockton-Darlington Railway. Enthusiasm may be damped by the reflection that the

"Rocket," in the famous locomotive competition of the twenties, achieved a speed of thirty-two miles an hour, but the "Rocket" had not a heavy train to pull, and the philosophic traveller will deem it only fair to Progress to take that point into consideration.

Or, again, the traveller may while away his fifty minutes by studying the scenery. Thus occupied, he can make many discoveries and speculations of interest. He can fathom the characters of persons unknown, by observation of that remarkable institution, the British Back-Yard, which will be found to vary from a mere ten-feet square in the neighbourhood of London Bridge to a spacious thirty by twenty at New Cross or a magnificent fifty by thirty at Croydon. His heart will go out to the owners of pathetic little lean-to glass-houses (tenants' fixtures, made in sections), brave souls who each evening and Saturday afternoon hasten "back to the land" to wrestle with the deep secrets of horticulture, to watch the ampelopsis slowly sidle up the garden wall, to lie in ambush for the all-consuming slug—to forget for a brief space the weariness, the fever, and the fret of earning bread in London.

And if, perchance, the traveller upon the road I speak of falls into this mood, if his thoughts have thus travelled further and quicker than his

body, and made him conscious of the lives and hopes and fears that are encompassed by the dreary and unlovely walls of London's suburbs, he will be entirely in the right mind, when the fifty minutes are at last accomplished and when he stands at the foot of a fair Surrey down, only fifteen miles from Charing Cross, to ponder the problems of home and city making.

Arrived at his short-and-yet-so-long journey's end, the adventurer may leave behind him the last of the suburban houses, and advance over the down, rapidly rising to a point three hundred feet above sea-level. Fair valleys will smile around him. The cows of a wise dairyman may be observed busily converting the communal pasture into a marketable commodity. The soaring lark will greet him. He will find it good "to be in England," whether the month be April or any other.

Upon the horizon, and some three miles apart, the observer will discern two great buildings, each defacing the prospect with what appears to be a factory chimney. And it will need but to cross the down a mile or so to bring into view a third building of the same kind, bigger and if possible uglier than the others.

The newcomer will wonder as to the nature of these gigantic erections, placed in a triangle upon

the fair hills of Surrey. If he inquires about them he will be saddened by the reply. He is in sight of three public lunatic asylums. The buildings belong to different authorities, but each is devoted to the same mournful purpose, the housing and, for the most part, the imprisoning of the insane.

Each of the buildings is a city in itself. Several thousands of lunatics are encaged in each, and the necessary attendants increase the population by about one-tenth. Some nine or ten thousand persons live in these palaces of sorrow!

The public guardians of these unfortunates have chosen well and wisely. The Metropolitan Asylums Board and the other public authorities concerned have hit upon beautiful homes for their charges. In Surrey, high above the sea-level, on the hills of health, the lunatics of London are carefully housed. They have spacious grounds to disport in, and such of them as are well enough to be permitted liberty enjoy walks in the neighbourhood which is a paradise to the pedestrian. The authorities who care for our insane are insistent upon the need for exercise in the open.

Meeting one of these parties, and not knowing the circumstances, the traveller might be pardoned for thinking those sane who live amid these scenes of beauty, and for wondering how man could be so insane as to tolerate the mean Back-Yards which

line the route to London. The world of the sane is so strangely ordered that men herd together in defiance of the laws of health, content to live without the greater part of what makes life worth living, while the world of the insane, ordered with intelligence, is to be sought in green pastures.

It is not necessary to grudge the afflicted their fair surroundings. By all means let us so dispose of these cases of sorrow. But why is there no hand, why is there no intelligence, to house here also the sane, or, as one might almost say, those who are not yet mad? If men can club together to dispose wisely of their lunatics, why cannot they also club together to dispose wisely of themselves?

Only fifteen miles from Charing Cross, and if we except the populations of asylums and barracks, and those who live on and by them, the people are few. Here is space enough for London to spread upon in happiness and health. The distance is negligible. It is not necessary to occupy fifty minutes in travelling fifteen miles. Electric trains from the centre could stop at every station and yet do fifteen miles, and more if need be, in thirty minutes.

And the land—the base of the life of man. Even now, in 1912, the land may be bought for the most part at the price per yard of a cotton fabric. The public, if they were so minded, could club together and buy it by the square mile for only sixpence to

a shilling a square yard, and then develop it until the club rents furnished, not only all moneys now paid in rates, but ample funds besides to use for many common ends now neglected for lack of means. Low rents, no rates, ample gardens, wide commons, and the roses of health in the cheeks of the children. No dream of the ideal this, but a simple business proposition susceptible of performance in our own time.

* * * * * *

The traveller's thoughts, widening with the landscape, are disturbed by a notice board. He reads: "Trespassers will be prosecuted: Beware of man-traps in the woods." A successful London shopkeeper has put up this notice upon the game preserve which he rents from the lord of the manor. This is no ideal, either! It is another practical possibility of the present, a possibility which differs from the other, *inter alia*, in that it calls for no intelligence in the performance.

XXVII

ÆSTHETIC ACRES

BEFORE me there lies a booklet with the captivating title of "Æsthetic Acres." It is the work of Mr C. F. Dowsett, a man who knows a good deal about land and its value. He is a Fellow of the Surveyors' Institution, and a member of the Royal Agricultural Society. Many broad acres have passed through his hands in bygone years. Now, as a private citizen, with no ulterior motive, he appeals to his fellow-countrymen upon the subject of their disregarded land. "Buy British Acres," he says, and he gives reasons for his advice.

His first reason is that British land is beautiful. With a sigh he remarks that he once had for sale a residence and about 4000 acres of land in a choice part of North Wales, which could have been bought for less than the price paid for Millet's "Angelus," and for £10,000 less than was paid for Meissonier's "1814." He describes the exceeding beauty of the pictures which Nature, taking the rainbow for palette and the elements for tools, has painted in these 4,000 British acres.

"A ray of sunshine will illumine one peak with a golden coronet, while all around is dark. The play of light and shade upon the physical features of such a country affords a combination and alternation of the rarest beauty. The mountains seem to interlace one another, one peeping behind another, then again a higher peering over its head, and so on and on to the right hand and the left stretching away into the vague distance. On reaching the summit, one is brought near to Snowdon on the north; on the north-east, beyond Llanberis Pass, arise the Glyders, and on the west Moel Hebog stands; then completing the compass the residence is seen, though two miles off or more in a straight line, and also the pretty village of Beddgelert."

It does not suggest itself to Mr Dowsett, apparently, but to me it is an amazing thing that this not inconsiderable portion of our tiny isle can be bought and sold in the open market for the price of an equal area of—*poor woollen cloth!*

But to leave beauty and come to business (for are we not a nation of shopkeepers?), says Mr Dowsett, who knows:

"Now we will consider a few instances of wealth accruing to those and their families who bought land for future profit. . . .

"In 1603 the Queen (Elizabeth) let Ebury Farm of 430 acres at £21 per annum. This farm is now known as Belgravia, the most aristocratic quarter of London. In 1665 Sir Thomas Grosvenor bought the farm, and his descendant, the Duke of Westminster, draws a large revenue from it to-day.

"The Bloomsbury Estate was sold to the Earl of Southampton, in 1617, for £600, now its value is hundreds of thousands for the land alone.

"A freehold house in Lincoln's Inn was sold for £1721 in 1758, and recently it was sold by auction for £13,000.

"Land at Hampstead, now worth £5,000 an acre, was let in 1100 at 1½d. per acre.

"One hundred and twenty acres of the Lisson Grove Estate were let in 1340 at £10 per annum.

"Moorfields, now producing £60,000 a year, was let in 1300 at four marks per annum.

"Two hundred and seventy acres of the Portman Estate in 1512 was let at £8 per annum; it is now worth hundreds of thousands as bare land apart from the houses."

And so on for many glowing pages runs this past dealer in and present amateur of land. Buy this imperishable commodity, he tells his reader—buy it judiciously, and you will not regret it.

Mr Dowsett addresses himself only to the private citizen; it is my desire to carry the matter a little further.

Has the reader ever reflected upon the fact that it would actually be cheaper to buy up the land of the United Kingdom than to cover its surface with cheap oil-cloth?

Here is a table of curious contrasts:

	Per Acre
Cheap painted linoleum (will wear for two or three years in fair use) . . .	£484
Inlaid linoleum (will wear for ten years) .	968
Wilton carpet of fair quality . . .	1,450
Turkey carpet of fair quality . . .	3,600
Lawn turf (not laid)	100
Building land at Chislehurst, Kent, 11¼ miles from Charing Cross . . .	1,000
Building land at Purley, Surrey, 13 miles from Charing Cross	500
Building land at Farnborough, Hants, 33 miles from Charing Cross . .	100
Agricultural land (average, say) . .	20

The total gross rental of the agricultural land of the United Kingdom (48,000,000 acres) is £52,000,000. According to the Royal Commission on Agricultural Depression, the capital value of this land is eighteen years' purchase—but

Lord Eversley, I think, holds that twenty years is a fairer figure. Let us take it at twenty years. Then the value of our 48,000,000 agricultural acres is only £1,040,000,000, or just over £20 per acre.

To cover these 48,000,000 acres (more than half the entire surface of the United Kingdom) with cheap painted linoleum at 2s. per yard would cost £484 per acre, or £23,232,000,000. Here is the contrast:

LAND AND LINOLEUM

Price of 48,000,000 acres of British land	£1,040,000,000
Cost of covering same with 2s. linoleum	23,232,000,000

Yes, "this blessed plot, this earth, this realm, this England," is to be bought up, outside the tiny crowded spots we call towns, at one-twentieth of the cost of covering the same area with cheap linoleum! It is to be bought for the price of the cheapest cotton fabric—one penny per square yard.

Am I jesting with a serious subject? Not at all. I am thinking of the problem of town and country, and all that is involved therein. The pity of it, that the land which was "the nurse, the teeming womb of royal kings . . . is now leased

out . . . like to a tenement or pelting farm." The land is cheap, for it no longer breeds men. Our people are in the towns . . . such towns!

Would not the British Government be well-advised to take the advice of Mr Dowsett and "Buy British Land," at a capital valuation less than that of the nominal capitals of the British railway companies—for a figure about one-half the annual income of the nation?

I am not possessed with the too common delusion that agriculture affords an unlimited field of employment, and that it is possible to sustain any large part of the British population by other means than manufacturing industry. But land is needed for healthy homes for industrial workers as well as for small holdings and allotments, and to acquire land for the re-planning of towns and the re-distribution of urban populations is really more vital to the national welfare than any question connected with rural operations, important as are the latter.

XXVIII

THE ESSENCE OF THE MATTER

LET us consider whether the United Kingdom ought to need Protection against foreign competition.

The British Isles are in two important respects fitted for the prosecution of successful industrial operations. The first, and by far the more important of these, is the possession of great and easily worked supplies of native coal. The possession of such Coal means the possession of Power. It means that the nation is gifted by nature with magnificent stores of energy which can be liberated to work the wonderful machines which men have invented —which can be expressed at will either as light, or as heat, or as electricity.

Incredible as it may appear, in the year 1910 the United Kingdom produced 264,000,000 tons out of a total world production of about 1,150,000,000 tons, *i.e. about one-fourth of the world's entire supply.*

True it is that this proportion, although high, has fallen, and is falling, but that is a fact in the

category of things inevitable. If we measure the United Kingdom against the world in point of coal output we get a true picture of the change which has occurred in the relative position of Britain in the world of work. Here are the facts — facts which may be commended to the reader as amongst the chief things which matter to the United Kingdom :—

BRITAIN'S COAL AND THE WORLD'S COAL
1875-1910
(Including Lignite)

Year.	United Kingdom Output.	All the World's Output.	U.K. Output as Percentage of Whole.
	Tons.	Tons.	Per Cent.
1875	133,000,000	280,000,000	48
1885	159,000,000	400,000,000	40
1895	190,000,000	570,000,000	33
1905	236,000,000	920,000,000	26
1910	264,000,000	1,150,000,000	23

The dominating facts set out in the above table are expressed to scale in the diagram which forms the frontispiece of this volume. We see what a remarkable change has taken place in the last generation. The British coal output has grown enormously; it has actually doubled. Nevertheless, the coal output of the world has grown much more rapidly; it has more than quadrupled.

Whereas in 1875 the United Kingdom produced about one-half of the world's output, in 1910 it produced less than one-fourth of the whole. These are facts which at once express the great actual progress, and yet the relative decline of the United Kingdom. It is useless to deplore them; they are of the order of things as to which if a man disquiets himself, he disquiets himself in vain. The change in the relative position of the United Kingdom as an industrial power was a thing not only inevitable, but a thing foreseen long ago—long before 1875—by the few men who took the trouble to get understanding. To the reasonable man, there is nothing in these facts to cause dissatisfaction. I call attention to them here in order that we may realise both the cause of our relative decline and the nature of the main factor upon which our industrial greatness depends.

Coal, because of its bulk and weight, which make its transport costly, has the remarkable economic property of drawing to itself raw materials and industries. If the nation which possesses coal is fortunate enough to be rich also in other raw materials, so much the better. If not, the possession of coal remains a tremendous advantage, because it acts as a magnet to industry.

The United Kingdom has a second considerable advantage in the world of trade: it occupies an

excellent geographical position and it has a fine seaboard. No part of the interior of the United Kingdom is removed more than about one hundred miles from tide-water. Moreover, many of the coal-mines are situated in near proximity to the sea, or are partly intersected by the sea, as in the case of South Wales.

When we inquire what other natural advantages the United Kingdom possesses, we find that they are remarkably few. We have still much native iron ore, varying from the rich red hæmatite of Lancashire and Cumberland to the poorer brown ore of Lincolnshire and Northamptonshire. On the average it is very much poorer in metallic content than the ore we have to import from abroad. Our copper has dwindled to a negligible quantity. We have a fair quantity of tin, but not enough for our work. We are badly off in respect of zinc and lead. Turning to other materials, there is a wide range of things which climate prevents us from producing, such as cotton, india-rubber, guttapercha, etc. The neglect of afforestation by the few men who own British land and by the British Government has almost deprived us of a native timber supply.

In these circumstances, this island, which possesses coal and a fine seaboard, is obviously wise to keep its ports open to the productions of

all the world, in order that it may use its coal and seaboard to the best advantage. We can cheaply assemble near a source of cheap power, and also near the all-connecting tide-water, the materials for any industry. We do this in practice with considerable effect. Having no native cotton, for example, we yet possess the greatest cotton industry.

As long as the country possesses supplies of cheap coal, or until such time as a better source of power is discovered, the United Kingdom is seen to be in a position which wise handling can make unassailable, although, as we have seen, a *relative* decline is inevitable. Drawing into her ports from all the world the productions of every clime, and working upon them with one of the finest power-supplies which the world knows, her people are clearly in a position to compete with any nation, or, as I should prefer to put it, to carry on industry to the best economic advantage.

Those, therefore, who, aware of the force of the above considerations, contend for the imposition of import duties to protect the British home market from foreign competition, *in effect accuse the British people of inefficiency.* Nothing can be clearer than this, that, possessing the advantages referred to, the people of the British Isles *can only fail in industry if they deserve to fail.* There is no place in the world, save the United States of America,

where industry can be carried on to better advantage if carried on under a Free Port system. Here, unless we are unfit for the work, the work can be as well done as anywhere.

In short, the only Protection which the British nation requires is the Protection of Efficiency. Given the application of science to production, the rest must follow as the night the day.

Have we any reason to believe that British manufacturers have become either actually or relatively inefficient?

As to actual efficiency of our industrial plants, there can be no possible doubt that British production at the present time is better in method than ever before. On the whole, our factories are better equipped and our captains of industry more scientific than they have ever been.

When it comes to relative efficiency, however, I am afraid it must be granted that we have lost ground. There are only too many evidences that we have not the science of the German, or the capacity for large dealings of the American. The brassworkers of Birmingham, who recently visited Berlin, and came back to report that the brassworkers of Berlin were better equipped technically than those of England, and that the designs they worked upon were superior to those of Birmingham, were, it is to be feared, speaking what is true of

more than the brass trade. It is to be hoped that their report is being taken to heart at Birmingham for the growing culture of the world demands that artistry shall be closely allied with production.

And too often, in my travels and observations, I come across engines and machinery ripe for the scrap-heap, but considered good enough for British work. Last year I encountered, at a South Wales colliery, a winding-engine over forty years old, which ought long ago to have been replaced by a modern machine. A winding-engine commands the lives of hundreds of men every day, for it actuates the lifts—"cages," the miner calls them—which connect the workings with the surface. As I looked—I wish I could say with astonishment—at the aged engine, which was leaking steam at every pore, I thought of the waste of energy and risk of life which its continued use involved, and of the implied indictment of the well-known men who "direct" the colliery's operations. And, lest it be thought that such examples are rare, let the following extract from the Final Report of the Royal Commission on Coal Supplies (1905) be pondered:—

> "It was stated by one witness that if the whole of the plant of the collieries in the kingdom were modern plant of the best description, the consumption of coal would be one-half of what it is to-day. We think it right to draw the attention of colliery

managers and other persons interested to this important consideration."

As to the efficiency of our industrial *personnel*, I confess that I view with alarm the utter indifference to public evils and eyesores which prevails in large parts of the nation. It is often my lot to speak in school buildings, and too often I find those school buildings amorphous masses of bricks and mortar, dingy in the extreme, ill-furnished, and reflecting only too clearly a very low conception of what is due from an Imperial race to its children.

And the children themselves. I am haunted by the children of British streets. I go to Glasgow, and there are dirty, bare-legged urchins on the railway platform ready to carry my bag. I walk round Hull, and I am begged from, by dirty, bare-legged children in street after street. I go to York (of poverty line fame), and sure enough there are the dirty children again. I go to Newcastle, and see on a Sunday dirty children turning Catherine-wheels to obtain coppers from the riders in tramcars. There is no getting away from dirty children in the United Kingdom, and the impressions given by cursory examination are unfortunately more than confirmed by official investigations. We learned only a little while ago, from an official medical inspection of Bradford

school children, that *only 22 per cent. of the children could be passed as clean!*

Now a nation may have coal, and it may have seaboard, but most obviously it cannot afford to waste human lives. The melancholy things of which I have spoken are incompatible with efficiency, and without efficiency nothing can avail.

Given a well-educated people, masters and men, and the United Kingdom has no more use for import duties than for imported coal.

Given an ill-trained people, and neither Free Trade nor Protection can avail us anything.

What is the verdict of eugenics?

It is this. While no system of education can lead out of a child's mind more than heredity has bestowed, it is true of the normal, average child that we can, by an improper system of training, reduce him to an unhealthy dolt, while, on the other hand, by an intelligent system of training, we can so develop his average inheritance of aptitude as to make him a healthy and capable being, fit, if not to be a leader of men, or an inventor, or a thinker of great new thoughts, to use the resources of the world to the advantage alike of himself and his kind. I should like to think that our ruling classes, who have mostly been trained in schools and universities which despise science, understood the essence of the matter.

INDEX

ACCIDENT INSURANCE, 109 *et seq.*
Aeronautics, backwardness of the United Kingdom, 204
Aeroplanes, 203 *et seq.*
Africa, British investment in, 99
Agriculture, wages, 25
Alexander, Mr P. Y., prize for aeroplane motor, 204
Alizarine dyes, 230
Aniline dye industry, 227
Argentina, British investment in, 99
Australasia, British investment in, 99
Australasia, British emigrants to, 72
Australia, population, 83
Austria-Hungary, emigration from, 78
Aviation, 203

BACON, rise of price, 248
Balance of trade, 92
Beauty, as a utility, 183 *et seq.*
Beef, rise of price, 248
Belgium, iron and steel output, 162, 164
Bell, Sir Hugh, apologia for British iron stagnation, 170
Bell, Sir Hugh, and International Iron and Steel Association, 156
Birth-rate, fall of, 84, 85
Bottles, quasi monopoly in, 123 *et seq.*
Bradford, condition of school children, 293
Brassworkers, British and German, 291
British Colombia, advertising for emigrants, 74
British Empire, British investment in, 99
,, emigration question, 86
,, population, 83
British iron stagnation, 161
Building trades, wages, 25

CANADA, advertising for emigrants, 73
Canada, British emigrants to, 72
,, British investment in, 99
,, population, 83
Capital, emigration of, 91 *et seq.*
Carder, Mr Frederick, on Continental glass trade, 236, 239
Cement trade, price agreement, 134
Census of wages, 23
Cheapness, 135
Children, of British streets, 293
Clothing trades, wages, 25
Coal, conservation of, 55, 65
,, economics of, 58 *et seq.*, 288
,, output of the world, 287
,, output, United Kingdom, 287
,, price of, 248
,, Royal Commissions on, 60
,, Stanley Jevons on, 58
,, United Kingdom supplies, 60
,, waste of, 54
Coal tar dyes, 227
Combination on world scale, 152
Combines, 109 *et seq.*
,, economy of, 149
Conciliation Boards, 9
Conservation of natural resources, 251
Consumption and production, 44
Continuation schools, 219, 222
Continuation Schools Bill, 223
Cotton, rise of price, 248

"DAILY MAIL" assists emigration, 73
De Ferranti, Mr S. Z., electrification scheme, 54
Death-rate, movement of, 85
Denmark, emigration from, 78
Domestic economy, 267
Dress, trades of, 195
Dyes, exports of, 227

EARNINGS, in various trades, 25
,, movement of, 28
Economies, falsely interpreted as cheeseparing, 266
Education, 209

Education, effect on industry, 232
,, in United Kingdom, 294
,, statistics of, 209
Efficiency in United Kingdom, 293
,, relation to wages, 43
Eggs, rise of price, 248
Elections, decided by little more than one half of population, 193
Electors, statistics, 189
Electricity, nationalisation of, 57
Electrification of railways, 52
Emigration, 67 *et seq.*
,, Austrian, 78
,, Danish, 78
,, destinations of emigrants, 72
,, effect of unemployment, 70, 71
,, Germany, 78, 80
,, Italian, 78
,, Spanish, 78
,, Swedish, 78
,, United Kingdom, 68, 70 *et seq.*, 80
Endowment of motherhood, 90
Engineering, wages, 25
Eugenics, verdict on possibility of training, 294
Excess of imports, 92
Exports, as affected by wages, 45
,, dyes, 227
,, France, 47
,, Germany, 47
,, United Kingdom, 70, 92

FAMILY BUDGETS, 4, 252
Fashion, effect on employment, 195
Food, cost of, 2, 30
Food prices, movement of, 30
Foreign investments, 91 *et seq.*
,, effect upon home industry, 101
,, estimate of, 99
France, emigration, 80
,, exports of, 47
,, iron and steel output, 162, 164
,, steel output, 164
Franchise, "classes" and "masses," 190
,, number of plural voters, 190, 193
,, number on registers, 189
Free Trade, 286
Fruit trees, suggestion for public planting, 187
Furniture, rubbish made for hire system, 107

GARY, JUDGE ELBERT H., on Steel Trust and Government control, 146
Gas works, wages, 25
German Empire, increase of population, 88
German Metalworkers' Society, 8
Germany, continuation schools, 222
,, cost of social insurance, 174
,, emigration from, 78
,, enormous profits of national railways, 173
,, export iron bounties, 168
,, exports of, 47
,, exports of dyes, 227
,, glass exports, 233
,, insurance charges, 174
,, iron and steel exports, 167
,, iron and steel output, 162, 164
,, iron ore imports, 171
,, pottery schools, 243
,, pottery trade, 242
,, "pushfulness," 227
,, railways, growth of, 50
,, railway profits, 173
,, railway rates, 168
,, revenue from State undertakings, 57
,, scientific industry of, 227
,, steel output, 164
,, tariff on dyes, 228
,, Trade Unions, 7
Giving employment, 257
Glass exports of Britain and Germany, 133
Glass trade of Britain, 234, 239
Gold output and prices, 3
Gold production of the world, 247
Government control of industry urged by Judge Gary, 146, 152

"HALF-TIMERS," 215
Hanover, public tree planting, 187
Hides, rise of price, 248
Hours of labour, 180
Housing, 274
Hungary, public tree planting, 188

IDLE RICH, number of, 258

Imports, British, 92
Income Tax Assessments, 4
Income Tax Payers, number of, 4
Incomes over £700 a year, 258
Index numbers, of wages and prices, 2 *et seq.*
India, British investment in, 99
India, population, 83
Indigo, German production of, 228
Insurance against accident, 109 *et seq.*
Insurance, German charges, 174
International Iron and Steel Association, 157
Invention in household economy, 44
Invention, suppressed by combine, 126
Investment, oversea (*see* Foreign Investments)
Invisible exports, 93
Iron, American output, 162
,, Belgian output, 162
,, British output, 162
,, French output, 162
,, German output, 162
,, rise of price, 248
,, Russian output, 162
,, world output, 166
Iron and steel, American trust production, 142
,, British production, 143
,, British stagnation, 161
,, Brussels Conference, 155
,, International Association formed, 156
,, world combination, 152
,, world output, 162
Iron ore, imports by Britain and Germany, 171
Italy, emigration from, 78

JEANS, MR J. STEPHEN, on British railway rates, 173
Jeans, Mr J. Stephen, on German iron trade, 172
Jevons, Professor Stanley, on coal, 58
Jute, rise of price, 248

KILLED and wounded in industry, 178
"Kippers for Father," 266
Krupps, wages paid by, 48

LABOUR UNREST, 9, 37
Land, low price of, 280
Land nationalisation, 285
Latin America, British investment in, 99
Lloyd George, Mr, and railway agitation, 15
Lloyd George, Mr, on "Idle Rich," 258
Lodger franchise, 191
London County Council, domestic economy classes, 267
London food prices, 30
London, land values of, 282
Lunatics, better housed than the sane, 277

MACLAREN, SIR CHARLES, on British iron stagnation, 161
Maize, rise of price, 248
Manufacturer, as affected by low wages, 40
Medical inspection, of Bradford school children, 293
Men without votes, 189
Metal trades, wages, 25
Mill, John Stuart, on Socialism, 139
Mines, accidents in, 176
Minister of beauty, 184
Monopoly, 129
Motherhood, endowment of, 90
Munich, continuation schools, 222

NATIONAL organisation in Germany, 168
Nationalisation, of land, 285
,, of power, 53
,, of railways, 50, 141 *et seq.*
,, of railways, and trade stimulation, 168
Natural increase, 85
Natural resources of United Kingdom, 289
New Zealand, population, 83

OVERSEA INVESTMENTS, 91 *et seq.*

PAISH, MR GEORGE, estimate of foreign investments, 98
Parliamentary electors, 189
Petroleum, rise of price, 248
Pig iron, outputs, 162
Plural voting, 190

Poor, large number below modest poverty line, 257
Population, of British Empire, 83
Post Office, economy of single control, 140
Pottery industry, 242
Poverty line, 252
Poverty line in 1912, 256
Power, Commission suggested, 57
,, nationalisation, 53
,, supply, 54, 55
Pretoria mine disaster, 176
Price-maintenance, 135
Prices, agreement to maintain, 131
,, artificial control of, 130
,, and gold production, 247
,, as affected by wages, 43
,, cause of rise, 246
,, movement of, 30
,, of food in fifteenth century, 35
,, of land, 282
,, retail, 2, 30
,, wholesale, 2, 30
Product, sharing between master and man, 41
Production limited by low wages, 40
Profits of recent years, 4
Progress and the poor, 272
Protection, 286
Protection and emigration, 82
Prussia, State revenues from industry, 57
Public utility services, wages, 25

RAILWAY NATIONALISATION, 50, 141
Railway rates, 51
Railway servants, conciliation scheme, 16
,, earnings, 10
,, wages, 16, 17, 18, 19
Railways, accidents on, 179
,, British, growth of, 50
,, disaster at Hawes Junction, 179
,, dividends, 21
,, electrification of, 52
,, fatalities, 79
,, mileage of British and German, 50
,, of German Empire, 50
,, of United Kingdom, 50
,, profits, 22, 42
,, rates and charges, 22
Railways, used by Germany to stimulate trade, 168
Ramsay, Sir William, on coal exhaustion, 59
Revenue from national undertakings, 57
Rice, rise of price, 248
Roadside planting by the State, 187
Rogers, Professor Thorold, on wages in the fifteenth century, 35
Rowntree, Mr B. Seebohm, on poverty in York, 252
Rubber, rise of price, 248
Rubbish, manufacture of, 103 *et seq.*
Ruskin on "Giving employment," 262
Russia, iron and steel output, 162, 164
Russia, steel output, 164

SALVATION ARMY, emigration work, 75
Scholars, numbers of, 209
Science in industry, 168, 227
Scotland, agricultural wages, 25
Scotland, water power of, 100
Shipbuilders, lockout of 1910, 8
Shipbuilding, wages, 25
Shipping, earnings, 93
Shipping, tonnage of, 94
Shipyard workers, 8
Signalman's hours of duty, 180
Socialism, suggested by American Steel Trust, 149
South Africa, population, 83
Spain, emigration from, 78
,, tariff on dyes, 228
Steel, American trust production, 142, 143
,, British output, 164
,, British production, 143
,, rails, price agreement, 134
,, world output, 166
Sweden, emigration from, 78

TARIFFS AND EMIGRATION, 82
Tea, rise of price, 248
Textile trades, wages, 25
"The Times" on railway dividends, 20
Thorold Rogers on wages in fifteenth century, 35
Tin, rise of price, 250
Tips on railways, 12
Trade, as affected by fashion, 195
Trade Unions, British, 7

Trade Unions, German, 7
,, lack of expansion, 7
,, unemployment rate, 70
Trees, by the roadside, 187
Trusts, economy of, 149
,, on world scale, 158

"UGLIFICATION," 185, 200
Unemployment, affected by fashion, 195
,, amongst trade unionists, 70
,, in fifteenth century, 35
United Kingdom, birth-rate, 85
,, change wrought by coal, 59
,, coal output, 287
,, coal supply, 60
,, death-rate, 85
,, economic position of, 286
,, education in, 209
,, emigration question, 72
,, exports, 70
,, foreign investments, 91 *et seq.*
,, glass trade, 234
,, iron and steel exports, 167
,, iron and steel output, 162, 164
,, iron trade, 161
,, natural resources of, 289
,, population, 83
,, profits, 4
,, proportion of world's iron and steel output, 166
,, wages in the last fifteen years, 1
,, wages in various trades, 25
,, wealth based on coal, 54
United States, British emigrants to, 72, 77
,, British investment in, 99
,, iron and steel output, 162, 164
,, price of coal, 65
,, steel output, 164
United States Steel Corporation, American government inquiry, 146
United States Steel Corporation, output of, 142

VITAL STATISTICS, 84, 85

WAGES, agriculture, 25
,, and prices, 30
,, building trades, 25
,, clothing trades, 25
,, compared with prices, 2, 30
,, compared with profits, 6
,, economics of, 37 *et seq.*
,, economy of high, 37 *et seq.*
,, effect of rise on exports, 45
,, effect on prices, 41
,, engineering, 25
,, fall in recent years, 1
,, gas works, 25
,, in fifteenth century, 35
,, in four decades, 28
,, in Germany, 48
,, metal trades, 25
,, of railway servants, 10, 13, 15, 16, 17, 18, 19
,, public utility services, 25
,, rise of, stimulates production, 44
,, shipbuilding, 25
,, textile trades, 25
,, the case for high, 37
,, water works, 25
Waste, through competition, 148
Water power, of Scotland, 100
Water works, wages, 25
Wayside cultivation, 186
Wealth, derived from coal, 59
Wheat, rise of price, 248
White population of British Empire, 83
Women, cause unemployment, 195
Wool, rise of price, 248
Woolwich Arsenal, earnings, 33, 34
Workmen's Compensation, 109 *et seq.*
,, ,, accident insurance premiums, 174
,, ,, employers neglect to insure, 117
,, ,, insurance doctor, 118
,, ,, State system, 121
,, ,, Trade Union circulars *re*, 117
Workmen's Compensation Act in practice, 109

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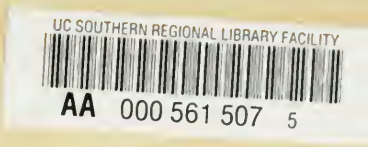

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